

The Hog Outlook for 1987-88

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Where Have All The Hogs Gone?

by

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The past year has been a good one for hog producers. Prices have averaged just under \$55/cwt. and have twice exceeded \$60/cwt. for an extended period of time. Combined with sharply lower feed costs, primarily due to the drop in the CCC loan rate for corn, the high prices have led to near record profits per head. Historically, hog producers expand production rapidly in response to high returns. However, divining the current expansion plans of hog producers is extremely difficult, due to a variety of factors, which include alleged problems with recent USDA Hogs and Pigs Reports, financial pressures, and misleading profit indicators.

In this paper I will examine the issue of the accuracy of the Hogs and Pigs Reports, comment on the prospects for expansion of hog production over the next year, and make the usual prognostications regarding prices. My primary purpose, however, is to emphasize the importance of carefully considering the uncertainty surrounding price forecasts. This is especially relevant in light of the present uncertain and volatile outlook for the supply of and demand for hogs.

The Case of the Missing Hogs

Inventory and pig crop estimates from USDA Hogs and Pigs Reports are widely-used to forecast future hog slaughter and pork production levels. The relationship between inventory and pig crop estimates and subsequent production is not without its own estimation error. A summary of pork production forecasting errors over 1982-1986 is shown in Table 1. The forecasts were

based on the historical relationship between pig crops and slaughter two quarters later and 60-179 lb. inventory estimates and hog slaughter one quarter later. The average absolute forecasting errors, 2.7% and 2.8%, respectively, are not inconsequential. Furthermore, the range of errors is quite wide, ranging from a low of -9.1% (forecast over-estimates production) to a high of +6.8% (forecast under-estimates production). The large errors occurred during early 1982, late 1985, and early 1986, periods that were important turning points in the hog cycle. This is sensible, in that estimation is in all likelihood much more difficult during cyclical turning points. There did not appear to be any pattern between the errors and the trend in production. (The year-by-year breakdown of errors is contained in the appendix.)

The previous analysis is highly relevant to the current controversy regarding the accuracy of the pig crop and inventory estimates contained in the March and June Hogs and Pigs Reports. The Dec-Feb pig crop and 60-179 lb. inventory estimates in the March Report implied that slaughter during the second quarter of 1987 should have been down about 1% compared to 1986. Slaughter actually declined about 9%. This discrepancy is shown in Figure 1, along with estimates based on information from previous Reports. Similar estimates from the June Report implied that slaughter during the current quarter should be up about 8% compared to 1986 (Figure 2). For the first half of this quarter slaughter has only increased about 1%. While slaughter is beginning to pick up, with an increase of above 5% for the week ending August 14, slaughter for the entire quarter is unlikely to increase by more than 3-4%.

The apparent "inaccuracies" in the last two Hogs and Pigs Report have been widely discussed in the trade. Within days of the release of the June Report

some in the trade were suggesting that the estimates in the Report had been invalidated by the June slaughter numbers. While it is self-evident that the recent Report-based estimates were too high, it is another thing to suggest that something has gone haywire with the Reports. In fact, the errors are within the recent range of errors reported in Table 1. Hence, after accounting for gilt retention, which Glenn Grimes estimates to be 1-2%, the recent "problems" can be explained simply by the errors inherent in the sampling and forecasting process.

I do note that there has been a rising trend to the errors from Report-based slaughter forecasts over the last year and that the second quarter error was at the limit of recent historical experience. Especially noteworthy is the fact that the errors increased substantially between the September and December Reports (this can be seen by referring back to Figures 1 and 2). Since the survey was changed in December, this could suggest that the new survey overestimates the inventory and pig crop numbers. Conversations with NASS personnel in both the livestock and statistics sections suggest this is not the case. Uniformly, they argued that the new survey should be at least as accurate, if not more accurate, than the old survey. The new hog survey is part of an integrated crops and livestock survey, which probably samples more hog producers as a result (although NASS personnel were uncertain of the exact increase). It appears to me that the only substantive methodological change was the reference date of the survey. Under the old survey, producers were sampled over a period five days before and after the reference date (i.e. March 1). Under the new survey, producers are sampled over the ten days following the reference date. This would not appear to me to cause any major problems.

In sum, the case of the missing hogs likely can be explained by the simple statement that such errors are in the range of historical experience. Three, specific factors, sampling error, forecasting error, and gilt retention probably explain the observed shortfall in slaughter. While no analyst likes to be faced with such uncertainty in basic data, it appears to be a fact-of-life. It does, though, reinforce the statement I made in the introduction: we need to carefully consider the uncertainty in our forecasts.

Expansion Prospects

Producers are expanding production, but not at the rate expected by many analysts. Prior to the June Hogs and Pigs Report, many were predicting the key indicators of expansion, the breeding herd and farrowing intentions, would be up 10-15% over 1986 levels. The Report showed that the breeding herd had increased 10% and producers stated intentions to farrow 8% more sows over the June-November 1987 period. Why is the expansion apparently occurring slower than many analysts expected? I will argue that three factors are responsible for the divergence between expectations and the indicated rate of expansion. The factors are (1) pressures to reduce debt rather than finance an expansion in production; (2) over-statement of peak profits by the hog-corn ratio; and (3) inappropriate comparisons to the 1982 profit cycle.

Please note that the analysis makes no assumption about the direction of the sampling errors of the data from the June Hogs and Pigs Report, or the direction of forecasting errors of methods based on the Report data. The analysis presented in the previous section suggests that both errors were on the side of overstating the expansion, which would further increase the divergence between expectations and the rate of expansion. However, the

historical range of errors is large enough that the true underlying rate of expansion could be understated.

The first factor contributing to the divergence between expectations and the apparent rate of expansion is the financial health of the farm sector. Neil Harl has recently characterized the attitude of farmers as one of "debt shock". This attitude has been widely cited as affecting the decision-making of hog producers. A recent article (July 27, 1987) in the Wall Street Journal highlighted the "growing prudence" of hog producers:

Hog farmer Dean Nilges was ecstatic when his newest batch of porkers brought a hefty \$62.50 a hundredweight at a local sale barn last month. "That's the highest I've ever gotten in my life," Mr. Nilges exults. If the price surge continues, he and his wife, Charlene, this year will show more than twice their 1986 gross income.

Unlike the case in previous boom years, however, the Nilges won't be investing their profits in more land, machinery or silos. Instead, they will be using it all to pay off their debt, which remains at a staggering \$200,000 though down from a peak of \$260,000 in 1983....

Despite the signs that the worst of the farm crisis may be over, most farmers, like the Nilges, remain very cautious. The conditions that once might have sparked a surge of new investment now find farmers too traumatized by the debt problem to be interested in expanding.

The degree that "debt shock" has actually affected the decision of hog producers to expand production is not easily discerned. In my judgement, though, the magnitude of the affect has been large up to the present date. The pressing need to reduce debt chronicled for Mr. Nilges has also been evident for farmers in general. A good indicator of the aggregate need to reduce debt is the debt-to-asset ratio for the farm sector (Figure 4). Despite large reductions in debt over the last two years, the debt-to-asset ratio has stubbornly remained near 25%, a level not seen since the 1920s and 1930s. If the farm sector is to return to a more normal ratio, say 15-16%, then further

large debt reductions are in order. My colleagues at Ohio State, Carl Zulauf and Allen Lines, have recently estimated that debt may have to fall another \$32 billion after 1987 in order to reach a sustainable debt burden.

The farm sector is going to need to reduce debt in aggregate for at least the next 3-5 years. However, the 1987 USDA report on farm financial conditions indicates that beef, hog, and sheep farms are faring relatively well. Proportions of these farms in the two poorest financial categories totalled 15%, compared to 32% for cash grain farms, and 22% for all farms. Tempering this comparison is the fact that many farms classified as cash grain also are significant hog producers. On balance, though, the evidence suggests that recent profits have improved the financial health of hog farms. As a result, the "debt shock" factor is likely to be less important to future prospects for hog production.

The second factor contributing to the observed divergence between analysts expectations and indicated growth is the over-statement of peak profits by the hog-corn ratio, a widely-used indicator of profitability. Since July of 1986 the hog-corn ratio has been at record levels, at times exceeding 40:1, which is about 25% above the old record high. This can be compared to actual profits per head (Figure 5), which are also at historically high levels, but have not exceeded the annual record profit of \$36.33/head set in 1978 or the monthly record profit of \$64.68/head set in September 1975. The peak hog:corn ratios have been misleading for two reasons. First, since the majority of hogs are grown on corn farms, the opportunity cost of corn is important. In the present era of low government price-supports and high target prices, a hog-corn ratio based on market corn prices will drastically understate the opportunity cost of corn, and hence overstate production incentives. Second, the ratio has become

a poorer indicator of profits over time because corn has progressively become less important from the standpoint of the total cost of producing hogs. As a result, some analysts have been misled by the hog-corn ratio in assessing the magnitude of hog production profits, and hence, the magnitude of the resulting production response.

A third reason for the divergence from analysts expectations is that the numerous analogies made between the current situation and the 1982 profit cycle are not strictly valid. The reason I say this is that the 1982 profit cycle was the most abrupt in the last twenty years. This is documented in Table 2, which shows the number of consecutive months of profits and the number of months from peak profitability to losses for each cycle since early 1965. Over the 1960s and 1970s the average length of profitable periods was 28 months. Profits lasted only 17 months in the 1982 cycle, a 40% drop.

The 1982 profit cycle was abnormally short, and hence not comparable to the current situation, for a variety of reasons. First and foremost, a large number of production facilities were built in the late 1970s, and after the downturn in 1980-81, served as a reservoir of "excess capacity" that could be drawn upon to rapidly increase production. Second, the financial situation of most hog farms was certainly much stronger than the current situation. Although high interest rates were debilitating some of this advantage, producers were able to generally find external financing if needed, or generate the funds internally. Third, the demand shifts that have ravaged the red meat sector in the 1980s were in full force by 1982. Simply put, as prices and profits rose to high levels consumers were less willing to buy pork than had been the case historically. It appears that this change took most of the industry by

surprise. Fourth, the PIK program and a severe drought sent corn prices spiralling in the summer of 1983.

In my judgement, the current profit cycle will be closer in length to those previous to 1982. The unique circumstances of 1982 do not appear to be present. Much of the excess capacity in the industry has rusted away, financial pressures are greater, and demand appears to be stabilizing. I expect profits to continue for at least another year as a result. This would make the length of the current profit cycle about 28 months, the average previous to 1982. Assuming that profits are currently peaking, this outlook is consistent with the time it takes to reach a loss after profits peak (second column of Table 2), which has ranged from 7-14 months since 1965.

Crystal Ball Gazing

I recognize that the purpose of this conference is not to present forecasting models or methods. But, my approach to forecasting is unique, as far as I can tell, and a brief exposition of it will be helpful in understanding the following section dealing with 1987/88 forecasts. First and foremost, my forecasting philosophy has been heavily influenced by research on the efficiency of futures markets. Specifically, I am an adherent of what might be called the "near efficient markets model".

Strictly interpreted, the "efficient markets model" implies that all available information concerning the future price of a commodity is reflected in the current price. This leads to the conclusion that the best possible forecast of the future price of a commodity is the presently-quoted futures price for the same forecast horizon. For example, the best possible forecast of the price of hogs in April of 1988 would be the present price of the April

live hogs futures contract. In such a world there is no need for extension outlook economists. Beware of dismissing this view too brusquely; in the stock market this view is responsible for the investment of over \$125 billion in so-called "index funds". Such funds do not employ stock price forecasters, due to the supposed impossibility of "beating the market", instead they simply buy-and-hold a broadly-based portfolio of stocks.

If I fully accepted the logic expressed in the previous paragraph the remainder of this paper would consist solely of recanting the most recent quotations of live hog futures prices. Research published to date suggests that futures markets are not strictly efficient. However, the same research also shows that any deviations from efficiency usually are not large and are difficult to predict. Hence, my view that futures markets are "nearly efficient". In practice, it means that normally I accept the present futures price as the best forecast, and if I do disagree with the futures market forecast I need to justify doing so.

The second component of my forecasting philosophy is that the uncertainty surrounding a forecast is as important as the forecast itself. It is my opinion that outlook economists (myself included) have been deficient in preparing and presenting this type of information. If a forecast error is reported it is typically in the form of a range around a mean price (explicit or implicit), with the width of the range constant across forecast horizons. This ignores the standard forecasting concept that uncertainty increases with the length of the forecast horizon (Figure 6). In more technical terms, the forecast variance is a function of time.

While it is easy to criticize the lack of emphasis on forecast uncertainty, the degree of difficulty in obtaining realistic estimates of the uncertainty

should not be discounted. Forecast variances from econometric models, if they can even be derived theoretically, are of limited use due to specification error, pre-test estimation bias, etc. Judgmental estimates are difficult to arrive at due to the non-intuitive nature of variance. Fortunately, the new futures options markets offer a solution to the dilemma.

Bruce Gardner pointed out a decade ago that one of the more important results of options trading is the public information that can be inferred from the selling price on an option. Just as futures prices generate information about expectations of commodity prices, an option's price (premium) generates information about expectations of the variability of commodity prices. This can be seen by viewing options markets as insurance markets. That is, an option provides a buyer with insurance against either price increases or decreases, without locking in the outcome. Just as with any type of insurance, the price of the "policy" will depend critically on the expected distribution, and hence variance, of possible outcomes.

A variety of procedures have been developed for deriving the variability of expected prices implied by options premiums. The 1977 article by Bruce Gardner and a recent dissertation by Paul Fackler provide excellent reviews of these procedures. The most straightforward conceptually can be illustrated with the aid of Figure 7. The five variables needed to determine an option's premium via the standard Black's pricing model are (1) the underlying futures price, (2) the strike price of the options contract, (3) the time-to-expiration of the option, (4) the riskless interest rate, and (5) the volatility (variance of standard deviation) of futures prices. After inputting the five variables into the pricing model, solution of the model will yield a predicted premium. To find the markets implied estimate of volatility the procedure is reversed. In

this case the five observed variables are the market options premium, the underlying futures price, the strike price, the time-to-expiration, and the riskless interest rate. The model is then solved "backwards" to find the volatility consistent with the observed premium. The validity of the procedure, of course, depends on the correspondence of the options pricing model with the actual options market pricing process. Available evidence suggests the Black model is a good approximation.

Once the implied volatility from the options markets has been obtained, it can be used as an estimate of forecasting error. Note, it is possible to estimate volatilities from historical price data. But, implied options volatilities should be more accurate because the options market considers information in addition to past volatility. In fact, if options markets are efficient in the same sense as futures markets, then the best possible estimate of the volatility, or forecast error, will be that implied by options premiums.

To summarize, my somewhat eclectic approach to price forecasting is to first assume that futures prices provide the best possible forecasts of prices in the future. Next, I examine the forecasts to see if they are consistent with my view of the fundamental supply and demand situation. If not I examine my logic and if it continues to be supportable I make appropriate adjustments to the futures prices. Finally, I obtain implied volatilities from the options market and construct confidence intervals around the mean forecasts.

1987/88 Forecasts

Two sets of production forecasts are shown in Table 3. The first is taken from the most recent Illinois "Outlook Update: Hogs" and represents a forecast based on no adjustment to the numbers in the June Hogs and Pigs Report. The

forecasts under Ohio State are my own and reflect assumptions (1) that inventory numbers were off by about 3% in the June Report, (2) a large expansion in production is not likely to be evident until late in the second quarter of 1988 or during the third quarter of 1988, consistent with my earlier stated expectations concerning duration of the current profit cycle, and (3) that weights will continue to rise, especially after the current quarter ends, when weights are expected to average 2% above previous year levels. The underlying slaughter changes are up 3,5,4, and 10% for 87III,87IV,88I, and 88II, respectively (The production increases are larger due to the increase in slaughter weights forecast for 1987/88). Imports are assumed to be unchanged from year earlier levels.

Demand for pork currently seems to be a positive factor, where it has been a substantially negative factor for most of the 1980s. A rough idea of the much-publicized leftward shift in pork demand can be seen in Figure 8. Note that the shift apparently began in the mid-1970s and was clearly in force by 1981. Preliminary data suggest that about the same level of per capita consumption will be reached in 1987 as 1986, but retail prices may be as much as 10-11% higher. This would plot approximately between the points for 1978 and 1974 on Figure 8. Possible reasons for the improvement include smaller supplies of beef, a shift away from chicken consumption due to publicity about slaughtering conditions, and income growth that is stronger than expected and not reflected in current macroeconomic statistics other than unemployment. I expect that the current positive demand situation will continue for at least the next four quarters.

Four sets of mean price forecasts are presented in Table 4. Those listed under Ohio State are, again, my own and reflect a subjective assessment of the

previous supply and demand outlook and corresponding adjustments to the futures markets forecasts in the third column. In the spirit of quantitative rigor, I did attempt to generate forecasts using the hog sector equations from a USDA quarterly model of the U.S. ag sector (see Westcott and Hull). Unfortunately, the model forecasts were so unrealistic that they were not included in the comparisons. The Illinois price forecasts were from the same source as the production forecasts and were generated via a regression equation with pork production as the sole explanatory variable. The composite forecast is a simple average of the first three columns and if recent research is correct, is probably the best of the four forecasts shown in Table 4. While the trend is down in all the price forecast series, the indicated levels are consistent with at least average producers experiencing some profits for the next year. Through the end of 1987, profits may continue at relatively high levels.

The first step in obtaining confidence intervals for the previous price forecasts was to estimate the expected price volatility implied by current premiums in the live hog futures options market. This was done by averaging the implied volatilities of at-the-money puts and calls for all options contracts traded on August 11, 1987. The volatilities for the three contracts traded, October, December, and February, were calculated using the Black model and are shown in Figure 9. Annualized volatilities ranged from about 28% for the October and December options to slightly more than 25% for the February options. This can be compared to the historical volatility of quarterly hog prices over 82I-87I, which was 22% in annualized form. It is not surprising given present uncertainties about supply and demand conditions that the options markets are predicting substantially higher volatility than was experienced in the previous five years.

The interpretation of these volatilities is straightforward. For example, if the expected price of hogs is \$50/cwt. in August 1988, then based on the February volatility, a one standard deviation range would be \$50/cwt. plus and minus \$12.50 /cwt. (.25 X 50). Strictly speaking, the volatilities are only applicable to the period covering the life of the option. However, the similarity of the volatility estimates suggests it is reasonable to extend the time period as needed. Finally, most software programs report annualized volatilities. To apply a volatility to a period shorter than a year, the usual case, the annual volatility has to be multiplied by the following fraction,

$$\frac{N}{256}$$

where N is the number of trading days over the forecasting horizon. This adjustment reflects the fact that volatility (standard deviation) is assumed to be a function of the square root of time.

The volatilities reported in Figure 9 were applied in the following fashion to my own mean price forecasts reported in Table 4. The October figure was used as an estimate of forecasting error for 87III, the December figure was used as an estimate for 87IV, and the February figure was used as an estimate for 88I and II. The resulting estimates of forecasting error are presented in Table 5. Note that the 87III error is adjusted to reflect that only half the quarter remains and is applied only to the expected average over the last half of the quarter to arrive at the error in dollar terms.

The degree of uncertainty indicated by the derived forecasting errors is quite large. A one-standard deviation range is over \$10/cwt. for the shortest forecasting horizon, 87III. The same range increases to almost \$20/cwt. for

the 88II forecast. The degree of uncertainty is driven home by noting that there is a 1 in 3 chance that actual prices will be outside of the indicated range, assuming the forecasting errors are normally distributed. The full range of upper and lower confidence limits is presented in Figures 10 through 13. Note in all of these charts the extremely wide limits for a confidence level of 95%, the level most commonly used to test statistical significance in research. For example, the 95% limits for the 1987IV forecast are approximately \$37/cwt. and \$63/cwt. While the 95% level is arbitrary and a much lower level of statistical confidence may be acceptable from an economic standpoint, also note that the commonly used range of \$5-6/cwt. implies a low degree of confidence. A \$6/cwt. range implies about a 45% confidence level for the 1987III forecast and about a 15% confidence level for the 1988II forecast.

These results are consistent with my statement made in the introduction to this paper. They also suggest a modification of the statement: not only do we need to consider carefully the uncertainty surrounding our forecasts, but we need to recognize that the degree of uncertainty is large, perhaps much larger than we would like to admit. The analysis also raises many interesting questions. Given the extremely wide confidence intervals, what is the informational content of our forecasts? Are the options markets unbiased estimators of expected price volatility? What is an economically significant confidence level? What is the most effective method of communicating probability statements?

There is one question I am not looking forward to answering. What do I tell the farmer in Fremont, Ohio who asks, " You mean to tell me that you can't say anything more than that hog prices will be above \$35 or below \$65 a year from now?"

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**Table 1. Pork Production Forecasting Errors
Based on Pig Crop and 60–179 Lb.
Inventory Estimates, 1982–1986 ***

	Pig Crop	Inventory
	------(%)-----	
Average Absolute Error	2.7	2.8
Range	–9.1 to +5.2	–5.1 to +6.8

*** Estimate Source: Unnevehr, "Market Fundamentals
for Livestock"**

Table 2. Hog Profit Cycles

Period	Number of Consecutive Profitable Months	Months from Peak Profit to Losses
<hr/>		
Apr. 65 – Jan. 67	22	14
Dec. 67 – Sep. 70	34	8
Oct. 71 – Mar. 73	30	8
Dec. 74 – Sep. 76	22	13
Dec. 76 – Aug. 79	33	7
Jan. 82 – May 83	17	9
May 86 – Aug. 87	16	?

Table 3. U.S. Pork Production Forecasts

Quarter	Ohio State	1987/86	Illinois*	1987/86
	(Mil. Lb.)	(%)	(Mil. Lb.)	(%)
87 III	3386	+4.6	3532	+9.1
87 IV	3810	+5.4	3849	+6.5
88 I	3768	+6.4	3695	+4.4
88 II	3640	+12.1	3785	+16.6

*** Source: University of Illinois Outlook Update, July 1987**

Table 4. Hog Price Forecasts

Quarter	Ohio State ^a	Illinois ^b	Futures Market ^c	Composite ^d
-----(\$/cwt.)-----				
87 III	58	51	56	55
87 IV	50	50	47	49
88 I	48	47	45	47
88 II	45	45	43	44

a Seven market average, barrows and gilts

**b Source: University of Illinois Outlook Update, July 1987,
Omaha Price**

c As of August 11, 1987

d Simple average

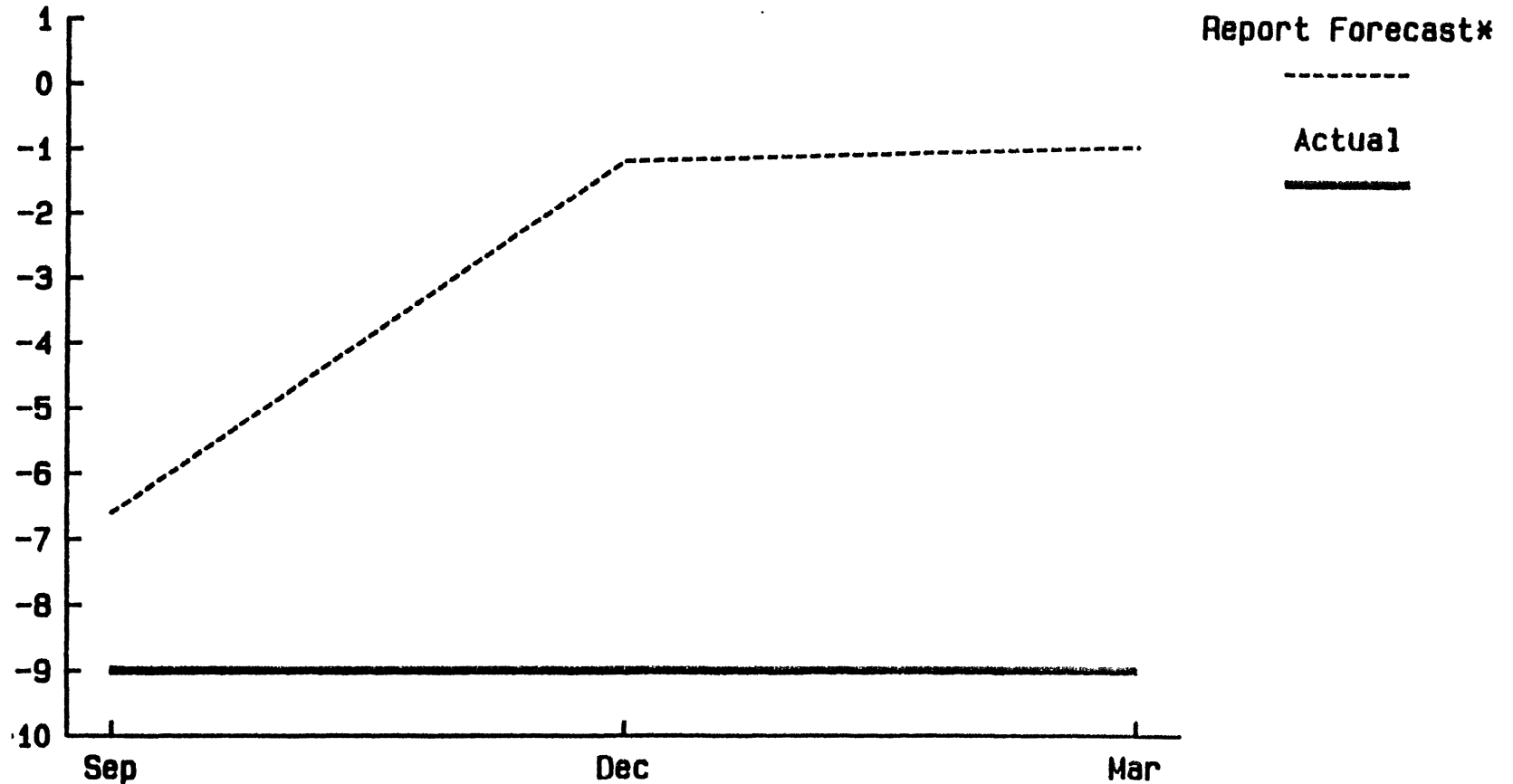
**Table 5. Standard Error of Ohio State
Price Forecast**

Quarter	Price Forecast* (\$/cwt.)	Standard Error		One Standard Deviation Range (\$/cwt.)
		(%/cwt.)	(\$/cwt.)	
87 III	58	9.88	5.56*	52.44 – 63.56
87 IV	50	13.88	6.94	43.06 – 56.94
88 I	48	17.92	8.60	39.40 – 56.60
88 II	45	21.95	9.88	35.12 – 54.88

*** Seven market average, barrows and gilts**

**Figure 1. U.S. Commercial Hog Slaughter
for 1987 II**

Percent Change from Year Earlier

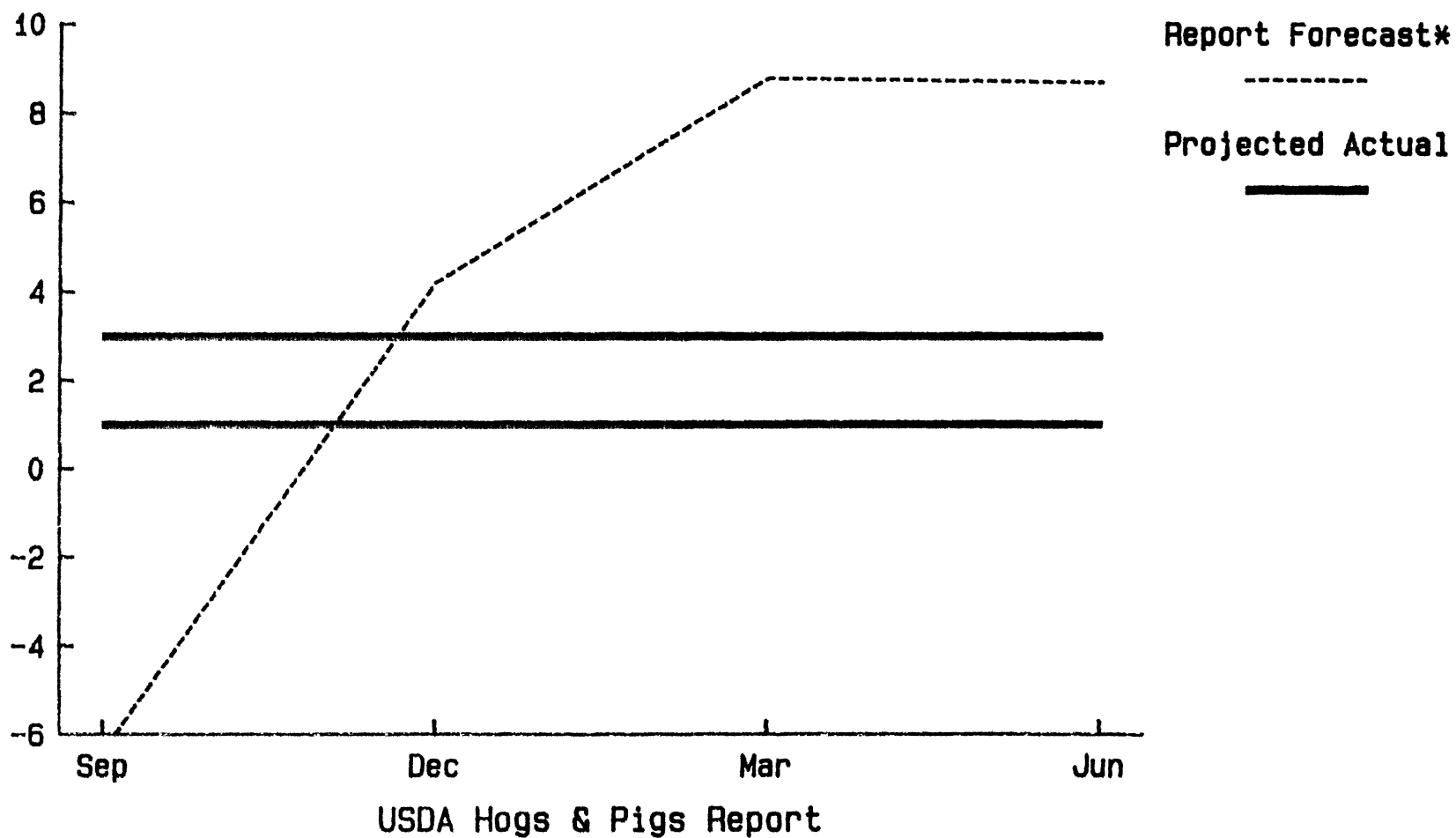


USDA Hogs & Pigs Report

* Source: University of Illinois Outlook Update

**Figure 2. U.S. Commercial Hog Slaughter
for 1987 III**

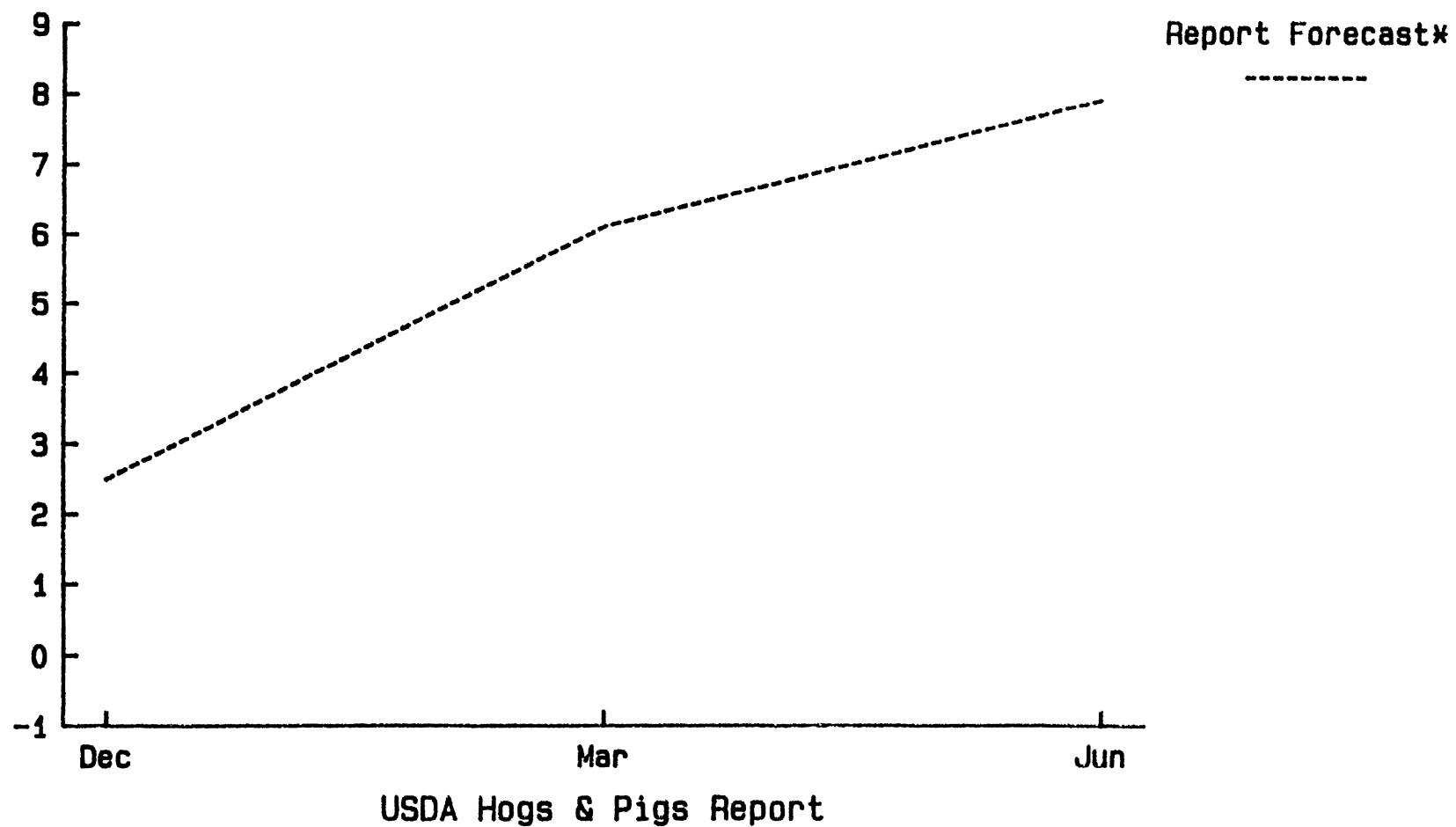
Percent Change from Year Earlier



* Source: University of Illinois Outlook Update

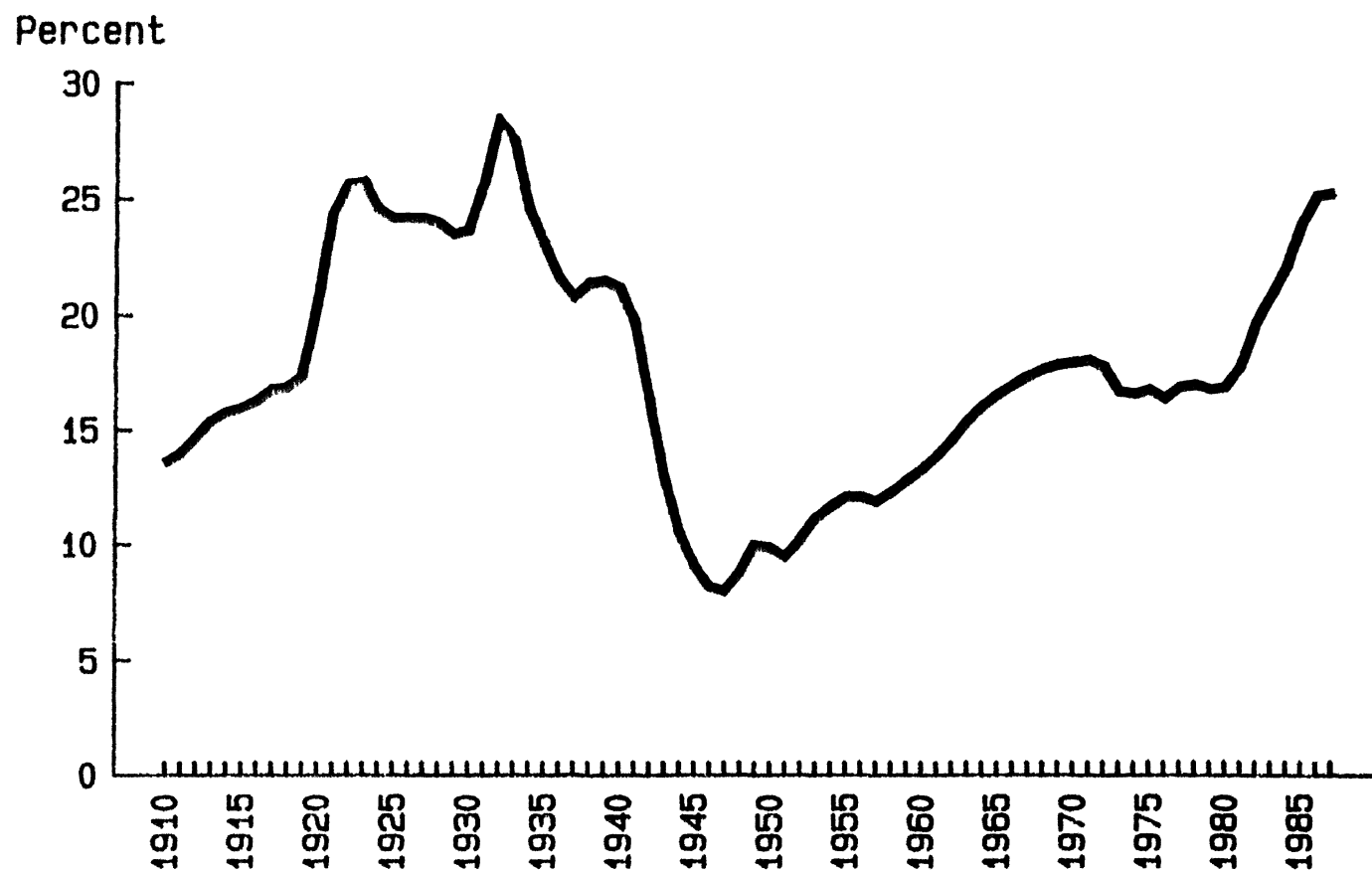
**Figure 3: U.S. Commercial Hog Slaughter
for 1987 IV**

Percent Change from Year Earlier



* Source: University of Illinois Outlook Update

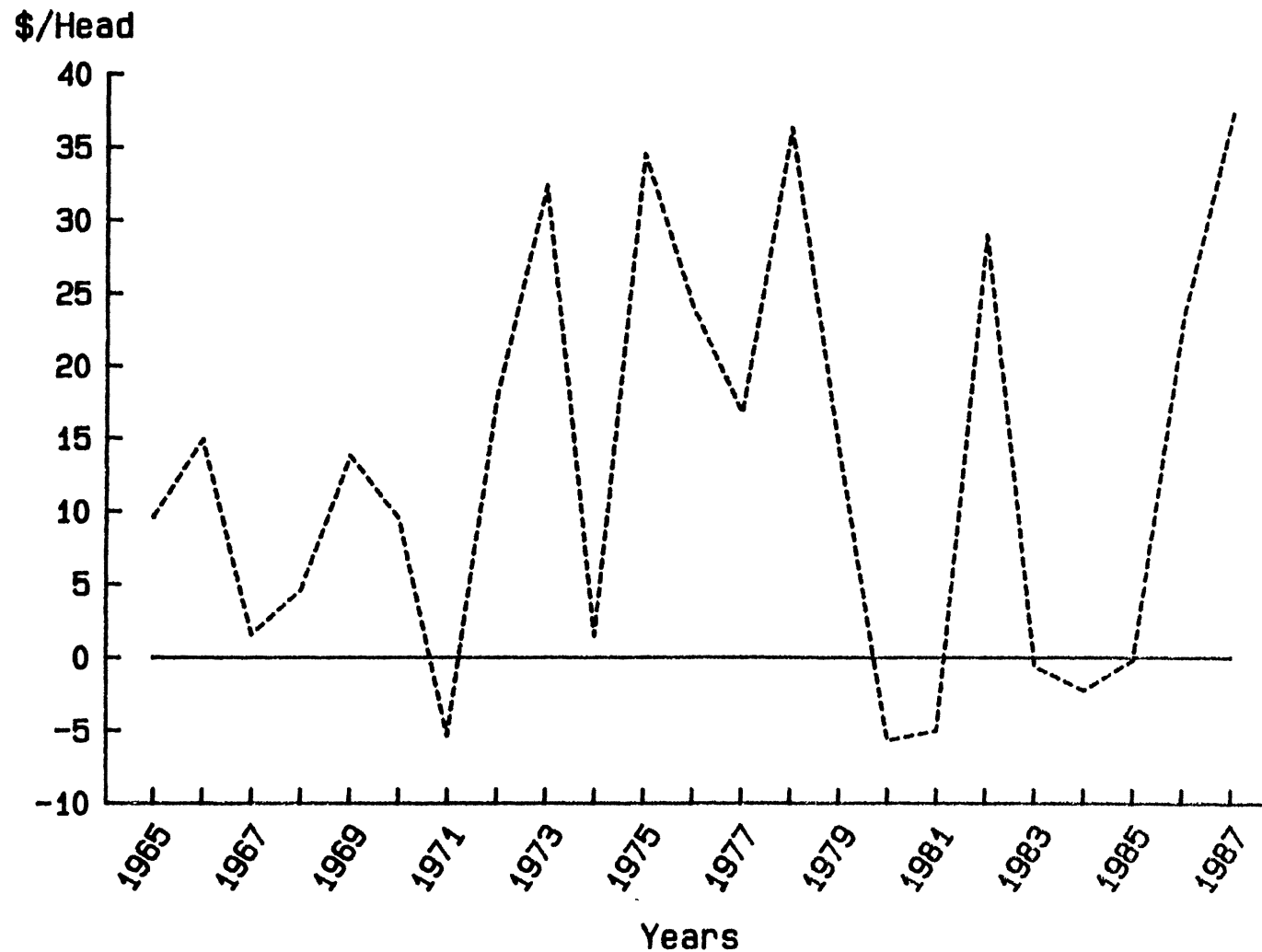
**Figure 4. Debt-to-Asset Ratio for the U.S.
Farm Sector**



1986 (projected)

1987 (forecast)

**Figure 5. Farrow-to-Finish Profit Per Head
1965-1987 ***



* Source: Gene Futrell, Iowa State University

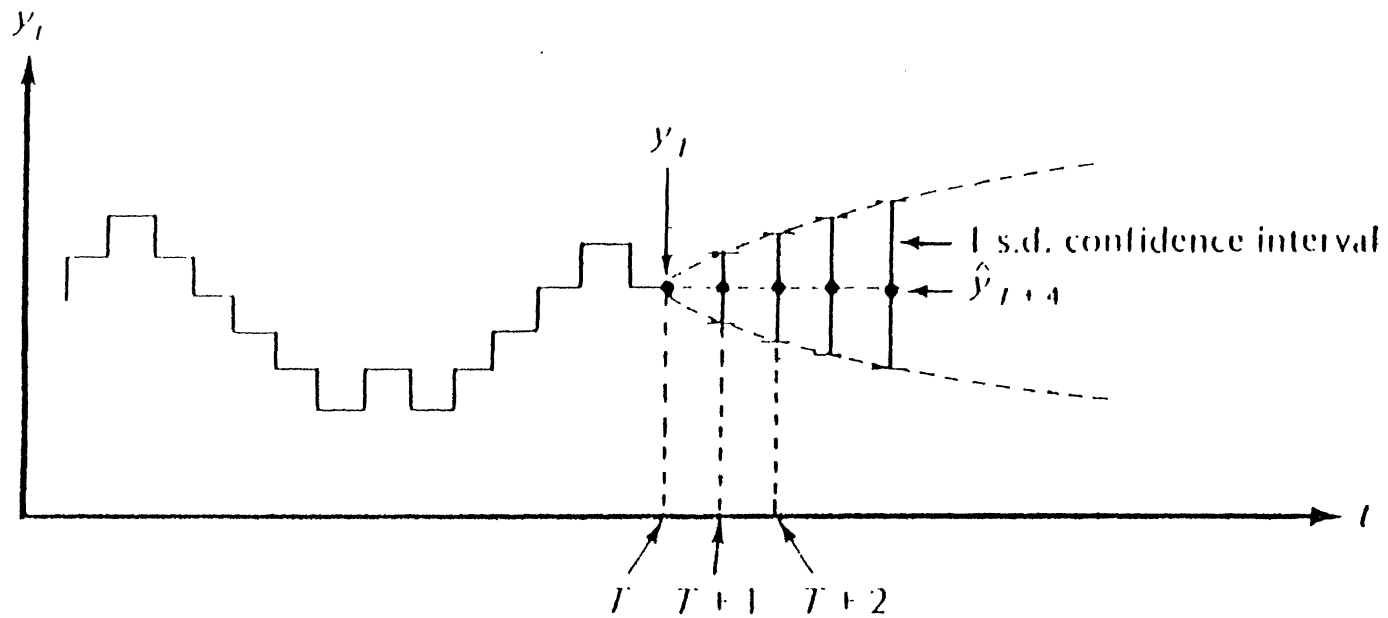
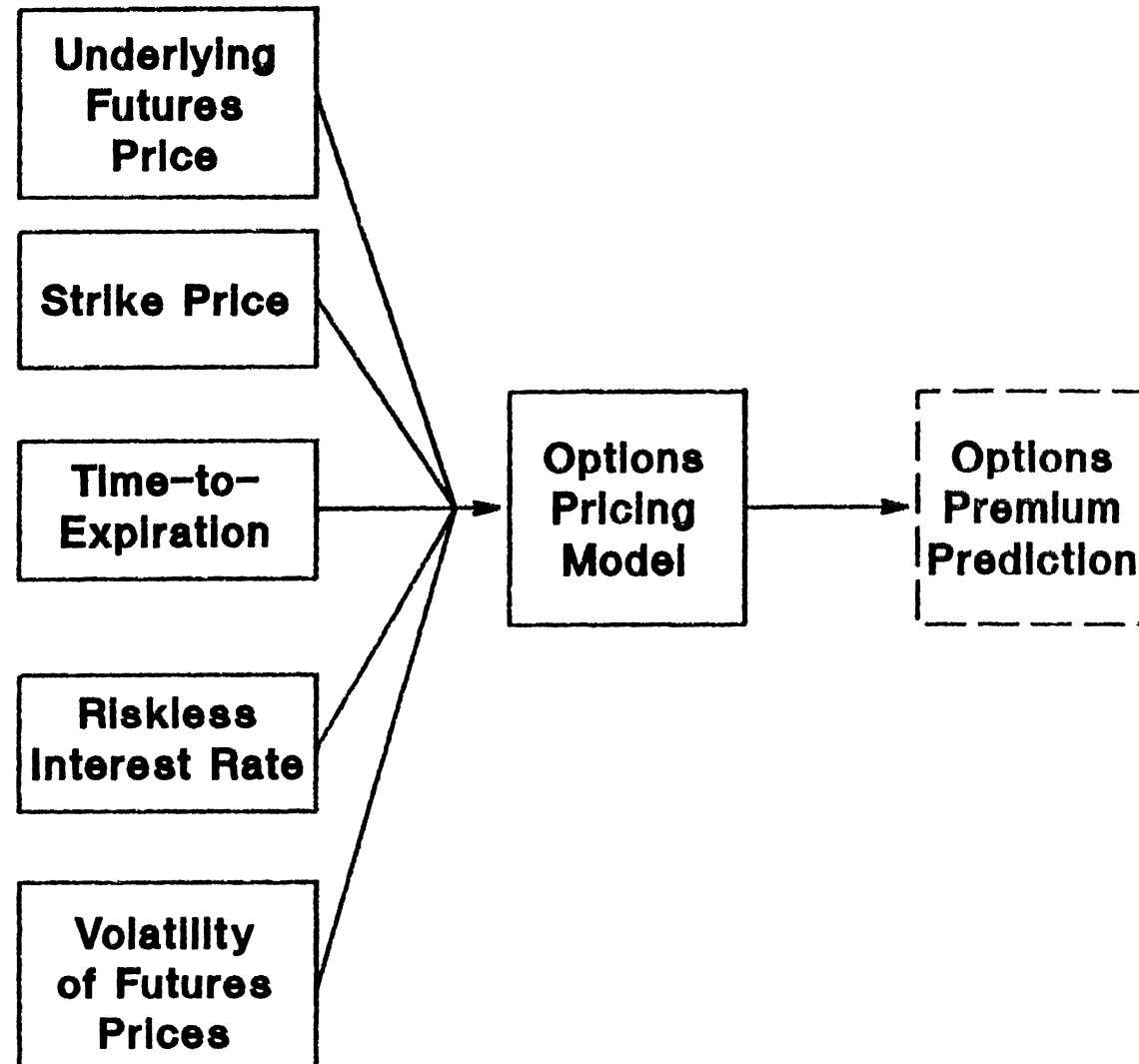


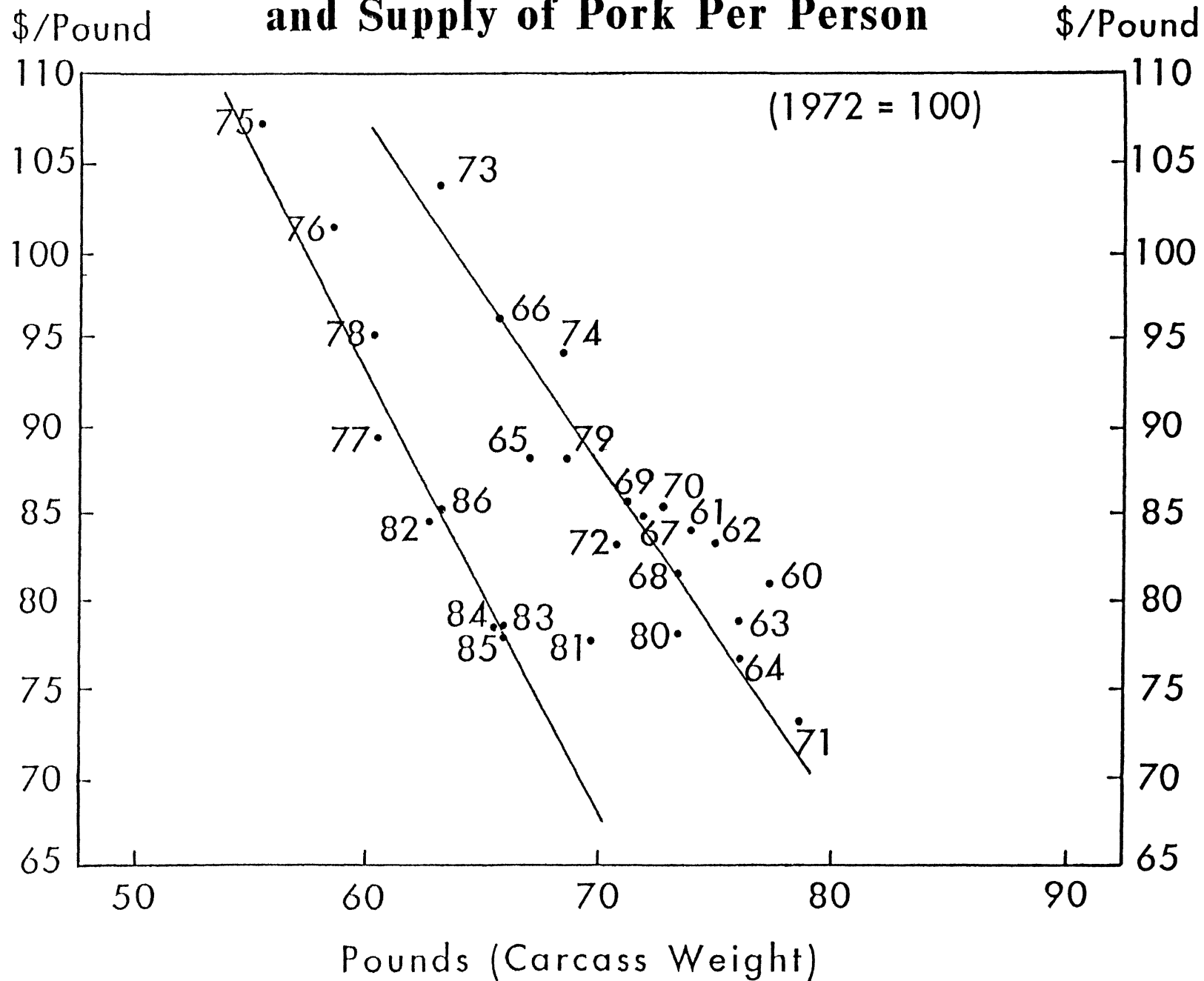
Figure 6. Forecasting a Random Walk

Source: Pindyck & Rubinfeld

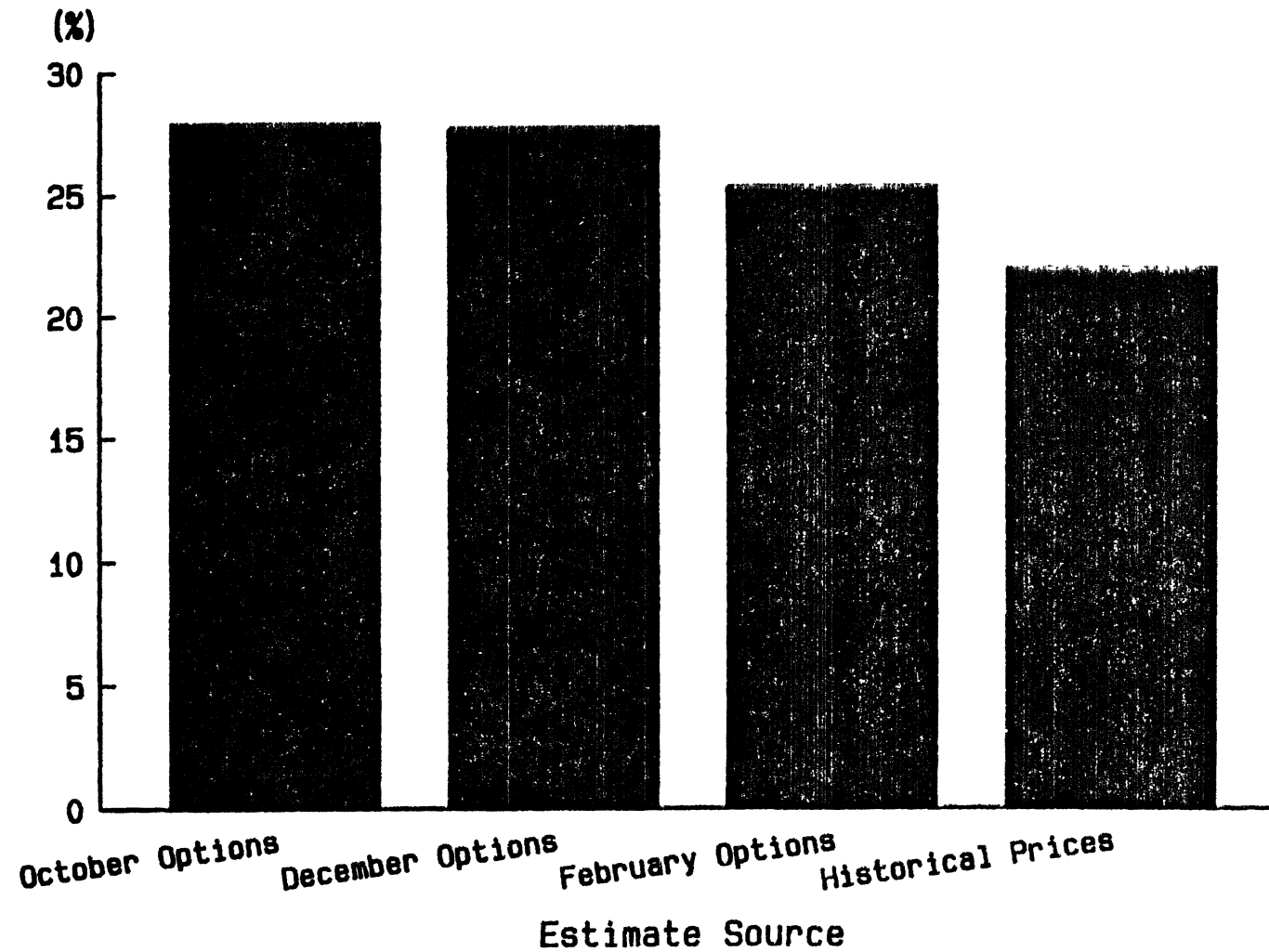
Figure 7. Options Pricing



**Figure 8. Pork Prices (Deflated)
and Supply of Pork Per Person**

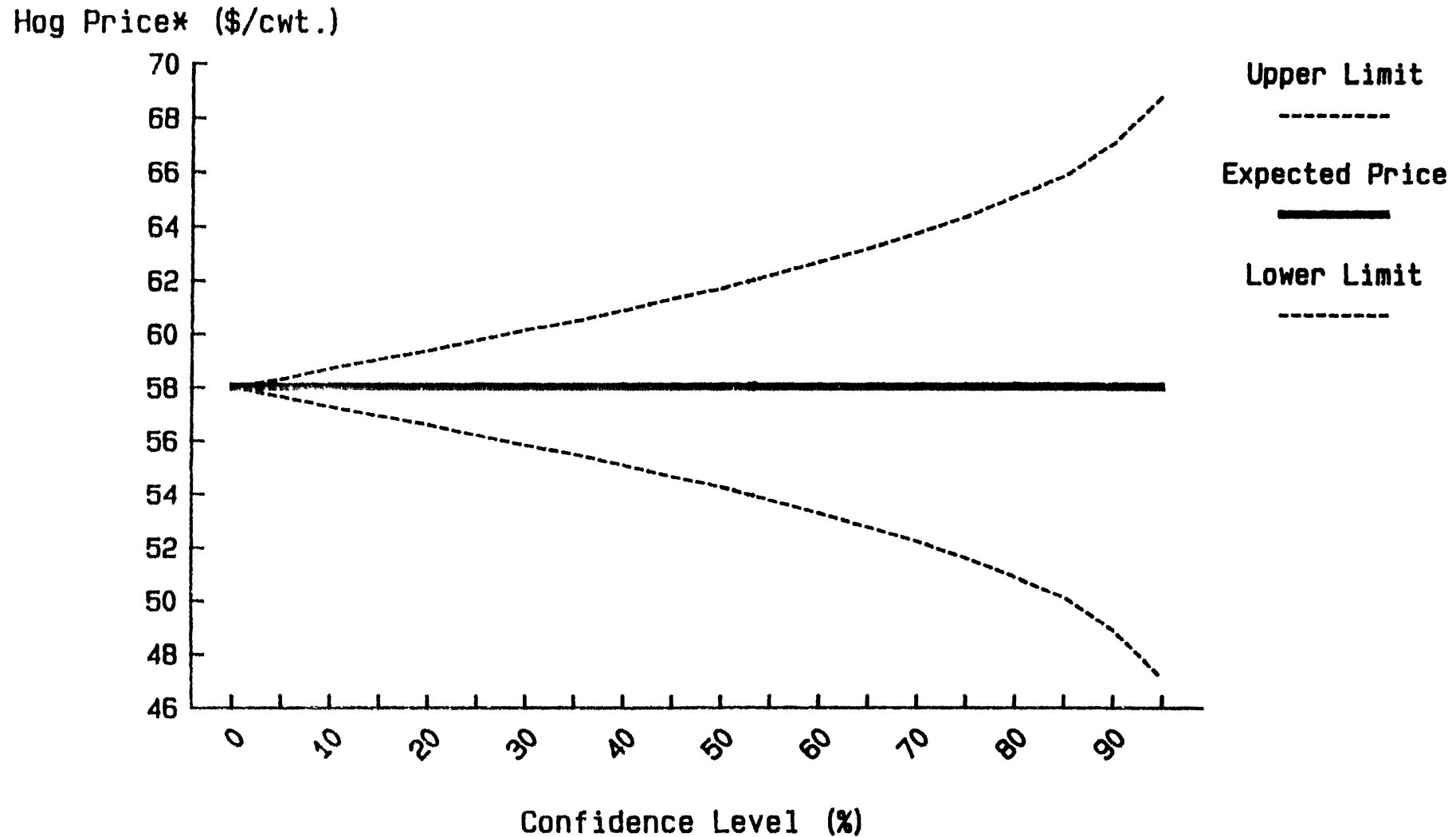


**Figure 9. Annualized Volatility Estimates
for Hog Prices ***



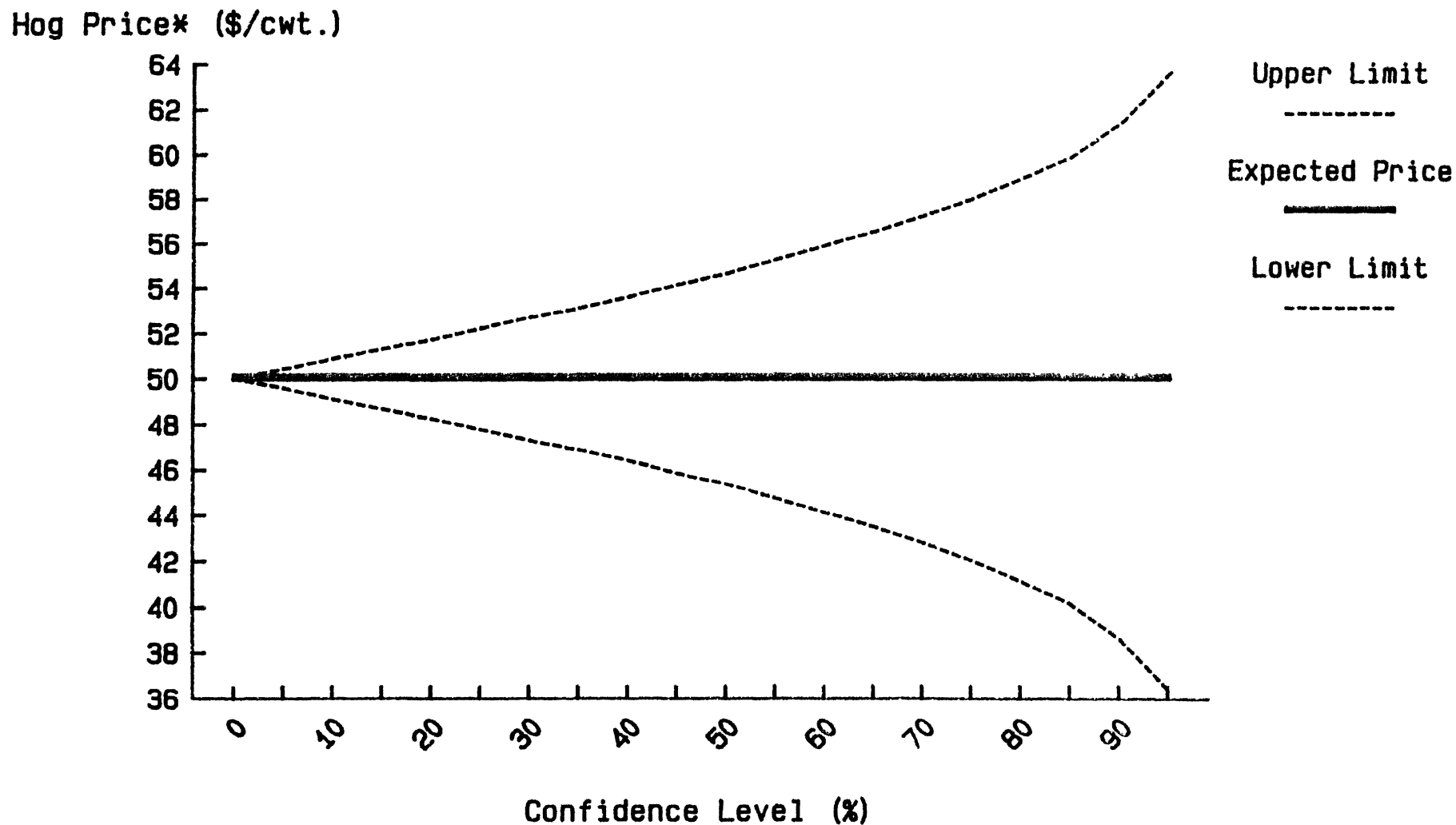
* Options volatilities as of August 11, 1987

**Figure 10. Confidence Limits for the 1987 III
Hog Price Forecast**



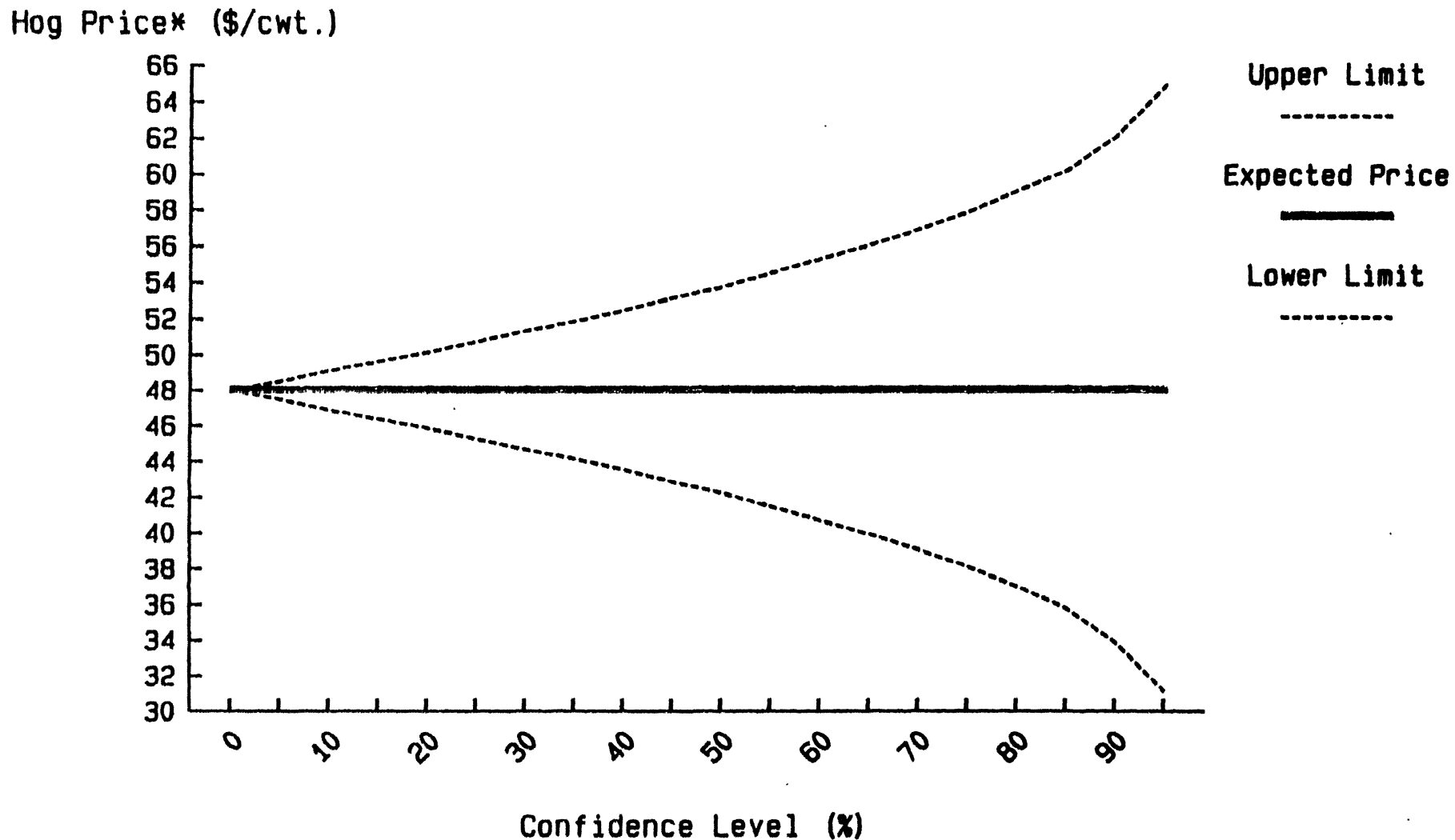
* Seven-market average, barrows and gilts

**Figure 11. Confidence Limits for the 1987 IV
Hog Price Forecast**



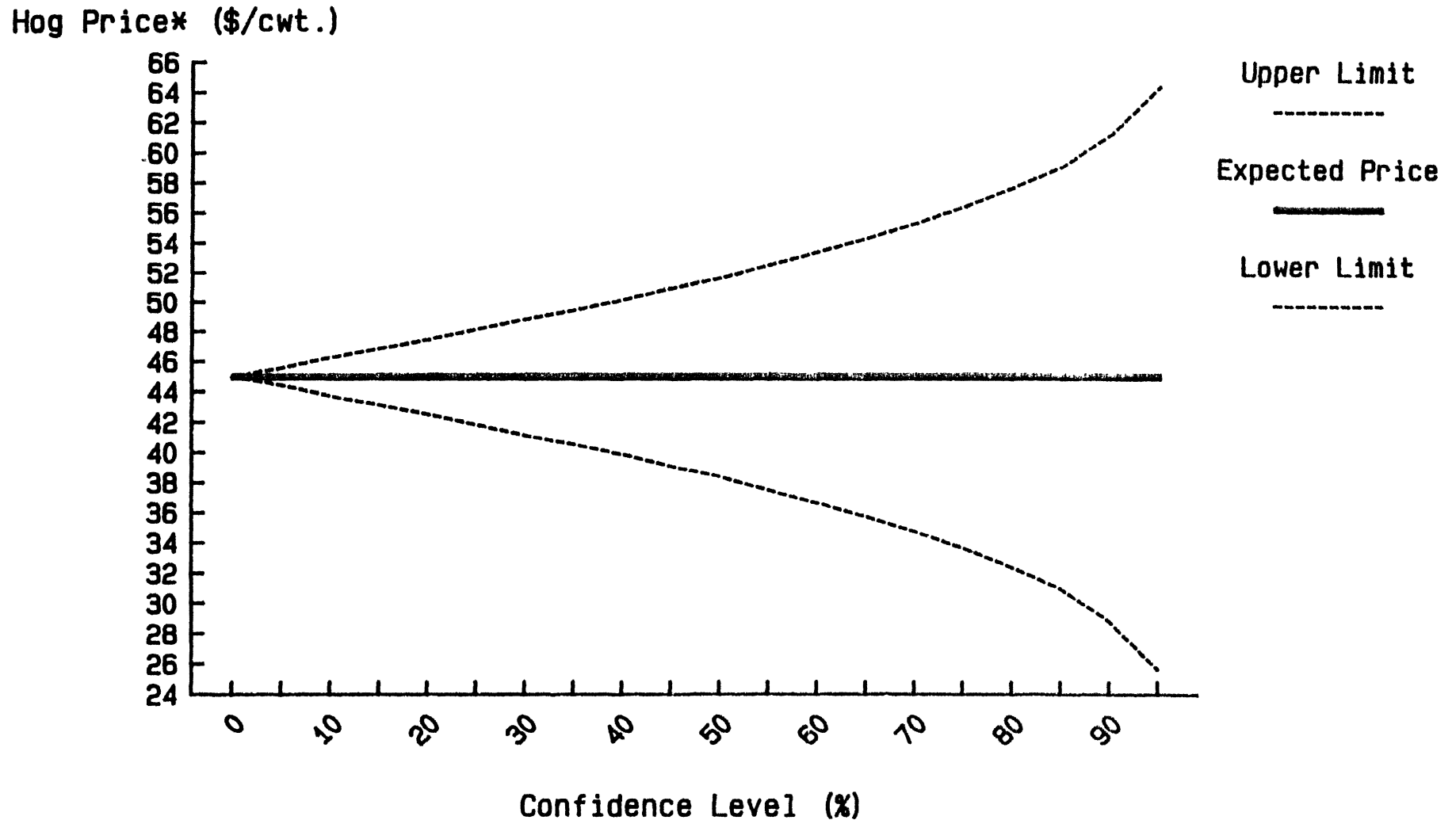
* Seven-market average, barrows and gilts

**Figure 12. Confidence Limits for the 1988 I
Hog Price Forecast**



* Seven-market average, barrows and gilts

**Figure 13. Confidence Limits for the 1988 II
Hog Price Forecast**



* Seven-market average, barrows and gilts

APPENDIX

Pork Production Forecasting Errors Based on Pig Crop and
60-179 lb. Inventory Estimates, 1982-1986.^a

<u>Jan. - Mar. Production</u>			<u>Apr. - June Production</u>		
	Sep.-Nov. Pig Crop	Dec. 60-179# Inventory		Dec.-Feb. Pig Crop	Mar. 60-179# Inventory
	-----	-----		-----	-----
	(%)	(%)		(%)	(%)
1982	-3.7	6.8		-7.1	-2.0
1983	0.0	+0.6		0.3	1.2
1984	-1.9	+1.7		3.1	3.8
1985	+1.2	+2.6		4.7	3.9
1986	-2.0	0.7		-3.8	-1.4
Avg. Abs.					
Error	1.8	2.5		3.8	2.5

<u>July - Sept. Production</u>			<u>Oct. - Nov. Production</u>		
	Mar.-May Pig Crop	Jun. 60-179# Inventory		Jun.-Aug. Pig Crop	Sep. 60-179# Inventory
	-----	-----		-----	-----
	(%)	(%)		(%)	(%)
2	0.3	-2.4		2.0	1.2
1983	2.1	4.0		0.0	3.1
1984	3.7	0.5		5.2	3.0
1985	3.8	6.3		0.0	3.1
1986	-9.1	-5.1		0.9	1.9
Avg. Abs.					
Error	3.8	3.7		1.6	2.5

Estimates Source: Unnevehr, "Market Fundamentals for Livestock"

Gene Futrell
Extension Economist
Iowa State University

Estimated Return (Profit) per Head on Hogs Sold From a Farrow/Finish Hog Operation
in Iowa (Average return on hogs sold in month)^{1/}
(\$ per head)

	<u>Jan.</u>	<u>Feb.</u>	<u>Mar.</u>	<u>Apr.</u>	<u>May</u>	<u>June</u>	<u>July</u>	<u>Aug.</u>	<u>Sep.</u>	<u>Oct.</u>	<u>Nov.</u>	<u>Dec.</u>	<u>Average for yr.</u>
1965	-2.46	-.79	-.78	1.11	6.48	13.70	1.67	18.21	14.61	16.56	19.30	27.96	9.63
1966	26.79	26.79	18.55	14.47	15.11	18.10	17.37	17.07	10.47	7.09	3.62	3.23	14.89
1967	.53	-.80	-3.24	-4.74	4.82	6.48	8.13	4.47	2.38	.56	-.25	.51	1.57
1968	1.08	4.11	3.23	3.59	3.59	6.73	9.26	6.03	6.34	3.17	2.69	5.15	4.58
1969	4.37	6.12	5.95	5.89	11.71	15.94	18.98	20.85	17.95	19.60	20.86	17.23	13.79
1970	23.01	24.29	19.59	15.23	14.20	14.20	16.04	7.29	2.38	-4.50	-9.49	-8.66	9.47
1971	-10.82	-6.04	-12.24	-13.28	-10.03	-7.07	-2.89	-4.50	-3.81	.10	1.21	5.28	-5.34
1972	11.89	14.72	10.41	9.78	13.72	18.83	22.90	22.51	23.30	21.14	20.42	26.09	17.98
1973	25.38	31.97	32.91	27.59	27.91	29.14	41.02	60.63	30.67	28.82	27.79	24.52	32.36
1974	23.16	17.20	4.49	-4.78	-14.66	-12.89	4.19	3.88	-4.36	.39	-1.52	2.46	1.46
1975	.95	4.36	6.56	12.26	27.22	38.79	53.19	57.07	64.68	62.72	44.15	42.38	34.53
1976	42.36	41.94	35.07	37.36	38.39	41.48	32.88	20.92	9.40	-7.12	-8.59	3.24	23.95
1977	6.91	8.53	3.26	2.01	12.55	18.86	24.54	23.43	21.62	23.77	22.67	32.22	16.70
1978	30.77	36.84	33.58	31.07	37.47	35.24	30.76	35.83	39.94	45.32	38.69	40.45	36.33
1979	45.50	47.01	34.18	26.18	23.38	14.68	8.80	1.07	-1.89	-14.90	-11.08	-6.69	13.85
1980	-9.70	-10.22	-17.54	-26.94	-24.83	-12.58	4.09	11.95	5.76	8.57	4.52	-1.64	-5.71
1981	-9.58	-8.59	-15.59	-14.72	-10.75	2.09	4.57	4.32	4.01	-1.61	-6.34	-8.15	-5.03
1982	5.04	13.33	12.47	18.63	32.68	34.81	36.15	45.34	46.47	35.04	31.58	35.93	28.96
1983	32.58	31.77	13.77	3.80	0.19	-4.93	-6.39	-1.32	-13.12	-24.05	-30.02	-10.07	-0.65
1984	-4.82	-14.06	-10.82	-5.80	-5.87	0.57	8.67	4.88	-4.65	-7.71	4.59	8.16	-2.24
1985	6.51	7.32	-3.32	-9.15	-7.00	1.44	2.94	-3.82	-8.83	2.10	2.06	7.36	-.20
1986	4.55	-0.15	-4.53	-5.30	11.40	25.37	41.44	50.91	46.07	36.41	39.71	34.42	23.36
1987	28.14	30.61	29.10	36.61	44.59	54.74							

^{1/} Estimates since 1974 are for confinement farrowing, growing and finishing facilities.

Source: Data since 1974 from "Estimated Returns from Farrowing and Finishing Hogs in Iowa," M-1198, July 1978, M-1198 (Revised), June 1980, and "Estimated Returns from Farrowing and Finishing Hogs in Iowa," M-1171, February 1974 Cooperative Extension Service, Iowa State University.

ESTIMATED MONTHLY BREAK-EVEN PRICE - FARROW - FINISH, IOWA

Farrowing Month:	July	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	Jun.	Yr.
Hog Sales Month:	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Avg.
	(\$ Per Cwt.)												
1965	17.63	17.70	17.74	17.76	17.94	17.99	17.75	17.74	17.70	17.64	17.42	17.22	17.68
1970	19.30	19.36	19.39	19.32	19.35	19.43	19.13	19.47	19.54	19.87	19.90	20.06	19.51
1971	21.22	21.30	21.39	21.30	21.30	21.28	20.80	20.71	20.22	19.71	19.17	19.30	20.64
1972	20.33	20.23	20.23	20.24	20.33	20.45	20.13	20.36	20.49	20.66	20.94	21.36	20.48
1973	23.32	24.04	24.98	25.57	26.57	28.52	29.57	31.79	32.95	33.18	33.25	33.20	28.91
1974	34.84	35.37	35.75	35.74	35.33	34.86	34.37	35.71	36.90	38.06	39.06	39.53	36.29
1975	40.64	40.43	39.50	38.96	38.60	38.28	37.36	37.45	37.40	37.08	36.35	35.71	38.15
1976	33.66	33.48	33.47	33.49	33.66	34.23	35.01	35.54	35.81	35.71	35.10	34.53	34.47
1977	34.45	34.58	34.81	35.13	35.41	35.42	34.99	33.96	32.62	31.53	31.02	31.10	33.75
1978	33.99	34.07	34.17	34.51	35.03	35.40	35.59	35.45	35.12	34.87	34.85	35.07	34.84
1979	35.46	35.78	35.99	36.22	36.60	37.05	38.34	39.47	40.38	40.99	41.23	41.56	38.26
1980	41.62	41.44	41.55	41.42	41.42	41.51	41.90	42.91	44.21	45.11	46.19	47.25	43.04
1981	48.06	48.55	48.64	48.79	49.15	49.52	49.60	49.35	48.44	47.32	46.31	45.39	48.26
1982	44.92	44.66	44.58	44.56	44.57	44.62	44.70	44.39	43.76	43.11	42.67	42.63	44.10
1983	45.60	45.90	46.42	47.40	48.40	48.92	49.35	50.27	51.18	51.71	52.14	52.35	49.14
1984	53.27	52.19	52.01	52.14	52.18	52.29	52.20	51.81	51.11	50.14	48.99	48.14	51.30
1985	47.51	47.03	46.75	46.58	46.34	46.01	45.76	45.18	44.55	44.07	43.81	43.75	45.61
1986	43.79	43.89	43.82	43.77	43.79	44.00	43.83	42.95	41.71	40.57	39.84	39.63	42.63
1987	38.65	38.30	37.80	37.69	38.08	38.66							

Source: Economics Department, Iowa State University

Cooperative Extension Service, Iowa State University of Science and Technology and the United States Department of Agriculture cooperating. Robert L. Crom, director, Ames, Iowa. Distributed in furtherance of the Acts of Congress of May 8 and June 30, 1914

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The Iowa Cooperative Extension Service's programs and policies are consistent with pertinent federal and state laws and regulations on non-discrimination regarding race, color, national origin, religion, sex, age, and handicap.

Notes on Sources:

Inventory Numbers, all hogs and pigs:

1954-1959:

PIG CROPS BY STATES, 1955-59; INVENTORY NUMBERS
BY QUARTERS, SELECTED STATES, 1954-59. USDA,
Agricultural Marketing Services, Crop Reporting
Board (Statistical Bulletin No. 276).
Washington, D.C.: January, 1961.

1960-1964:

HOG INVENTORY AND PIG CROPS BY STATES, 1960-1964.
USDA, Statistical Reporting Service, Crop
Reporting Board (Statistical Bulletin No. 383).
Washington, D.C.: December, 1966.

1965-1969:

HOGS AND PIGS, REVISED ESTIMATES, 1965-69. USDA,
Statistical Reporting Service, Crop Reporting
Board. (Statistical Bulletin No. 496).
Washington, D.C.: November 1972.

1970-1975:

HOGS AND PIGS: FINAL ESTIMATES FOR 1970-75.
USDA, Statistical Reporting Service, Crop
Reporting Board (Statistical Bulletin No. 588).
Washington, D.C.: December, 1977.

1976-1978:

HOGS AND PIGS: FINAL ESTIMATES FOR 1976-78.
USDA, Statistical Reporting Service, Crop
Reporting Board (Statistical Bulletin No. 648).
Washington, D.C.: December, 1980.

1979-1982:

HOGS AND PIGS: FINAL ESTIMATES FOR 1979-82.
USDA, Statistical Reporting Service, Crop
Reporting Board (Statistical Bulletin No. 716).
Washington, D.C.: December, 1984.

Updates: Various issues of HOGS AND PIGS. USDA, Statistical
Reporting Service (and successor agency) and Crop
Reporting Board.

The same sources were used for:

Inventory number, Kept for Breeding

Inventory number, Market Hogs

Market hogs & pigs by weight groups:

March 1

June 1

September 1

December 1

Sows farrowing

Pig Crop

Pigs per Litter

The Hogs and Pigs Balance Sheet was updated using:

Through 1984:

LIVESTOCK AND MEAT STATISTICS, 1983. USDA,
Economic Research Service (Statistical Bulletin No.
715). December, 1984.

To 1987:

LIVESTOCK AND POULTRY SITUATION AND OUTLOOK REPORT
USDA, Economic Research Service. February, 1987.

Pork supplies and prices:

(Various issues) LIVESTOCK AND POULTRY SITUATION AND OUTLOOK REPORT.
(Basebooks)

LIVESTOCK AND MEAT STATISTICS 1957. USDA
(Statistical Bulletin No. 230), July, 1958.

LIVESTOCK AND MEAT STATISTICS 1972. USDA
(Statistical Bulletin No. 522), July, 1973.

LIVESTOCK AND MEAT STATISTICS 1983.

PRICES RECEIVED BY FARMERS FOR HOGS 1909-1958. USDA,
Agricultural Marketing Service, Crop Reporting Board
(Statistical Bulletin No. 257), January, 1960.

Annual summaries. AGRICULTURAL PRICES. USDA.

FOOD CONSUMPTION, PRICES, AND EXPENDITURES 1985. USDA,
Economic Research Service (Statistical Bulletin No.
749), January, 1987.

Inventory Number, All Hogs and Pigs
Quarterly, 1954ff.

Year	10 States March 1	10 States June 1	10 States Sept 1	10 States Dec 1	SOURCE:
1954	NA	NA	NA	NA	SB 276
1955	NA	NA	NA	NA	SB 276
1956	NA	NA	NA	NA	SB 276
1957	NA	NA	47,819,000	41,968,000	SB 276
1958	37,758,000	48,786,000	NA	NA	SB 276
1959	NA	NA	54,585,000	48,394,000	SB 276
1960	39,344,000	45,988,000	46,957,000	45,193,000	SB 383
1961	40,070,000	48,807,000	49,857,000	46,865,000	SB 383
1962	41,154,000	48,598,000	49,964,000	48,079,000	SB 383
1963	42,007,000	49,631,000	51,379,000	48,146,000	SB 383
1964	40,533,000	47,600,000	48,543,000	44,213,000	SB 383
1965	37,041,000	41,885,000	41,929,000	39,220,000	SB 496
1966	36,337,000	44,257,000	46,145,000	44,055,000	SB 496
1967	38,855,000	45,801,000	46,769,000	44,997,000	SB 496
1968	39,788,000	46,649,000	48,290,000	46,896,000	SB 496
1969	40,361,000	44,506,000	44,627,000	43,075,000	SB 496
1970	40,178,000	49,130,000	51,043,000	50,413,000	SB 588
1971	44,441,000	48,567,000	47,570,000	46,354,000	SB 588
1972	41,676,000	45,387,000	45,647,000	44,588,000	SB 588
1973	41,525,000	45,349,000	45,863,000	46,670,000	SB 588
1974	42,705,000	45,041,000	44,415,000	41,650,000	SB 588
1975	35,350,000	36,210,000	36,725,000	36,875,000	SB 588
1976	35,725,000	40,845,000	43,190,000	41,650,000	SB 648
1977	38,880,000	41,270,000	43,243,000	42,258,000	SB 648
1978	39,310,000	41,750,000	43,680,000	45,180,000	SB 648
1979	45,595,000	49,520,000	50,930,000	50,920,000	SB 716
1980	48,935,000	49,060,000	49,250,000	49,040,000	SB 716
1981	45,275,000	46,200,000	47,170,000	45,970,000	SB 716
1982	40,670,000	41,240,000	41,840,000	42,890,000	SB 716
1983	42,250,000	45,645,000	46,030,000	44,150,000	H & P
1984	40,070,000	41,915,000	43,180,000	42,420,000	H & P
1985	39,680,000	41,650,000	41,820,000	41,100,000	H & P
1986	38,210,000	37,845,000	39,335,000	39,670,000	H & P
1987	39,235,000	41,080,000			

Inventory Number. Kept for Breeding
Quarterly, 1954ff.

Year	10 States March 1	10 States June 1	10 States Sept 1	10 States Dec 1
1954	NA	NA	NA	NA
1955	NA	NA	NA	NA
1956	NA	NA	NA	NA
1957	NA	NA	NA	NA
1958	NA	NA	NA	NA
1959	NA	NA	NA	NA
1960	NA	NA	NA	NA
1961	NA	NA	NA	NA
1962	NA	NA	NA	NA
1963	8,270,000	7,696,000	6,548,000	7,133,000
1964	7,435,000	7,145,000	6,260,000	6,464,000
1965	6,799,000	6,184,000	5,836,000	6,432,000
1966	7,283,000	6,773,000	6,255,000	6,768,000
1967	7,273,000	6,774,000	6,374,000	7,057,000
1968	7,265,000	6,987,000	6,697,000	7,283,000
1969	7,246,000	6,921,000	6,451,000	6,922,000
1970	7,427,000	7,902,000	7,301,000	7,027,000
1971	6,973,000	7,079,000	6,540,000	6,197,000
1972	6,449,000	6,777,000	6,496,000	6,494,000
1973	6,610,000	6,691,000	6,555,000	6,492,000
1974	6,662,000	6,533,000	5,937,000	5,472,000
1975	5,305,000	5,427,000	5,242,000	5,546,000
1976	5,842,000	6,168,000	5,929,000	5,956,000
1977	6,157,000	6,437,000	6,261,000	6,397,000
1978	6,087,000	6,512,000	6,550,000	7,093,000
1979	7,402,000	7,677,000	7,310,000	7,114,000
1980	7,148,000	6,961,000	6,551,000	6,810,000
1981	6,485,000	6,355,000	6,357,000	6,021,000
1982	5,594,000	5,684,000	5,578,000	5,708,000
1983	6,011,000	6,253,000	5,839,000	5,638,000
1984	5,446,000	5,771,000	5,550,000	5,348,000
1985	5,220,000	5,397,000	5,377,000	5,258,000
1986	4,948,000	4,840,000	4,840,000	5,050,000
1987	5,230,000	5,330,000		

Inventory Number, Market Hogs
Quarterly, 1954ff.

Year	10 States March 1	10 States June 1	10 States Sept 1	10 States Dec 1
1954	NA	NA	NA	NA
1955	NA	NA	NA	NA
1956	NA	NA	NA	NA
1957	NA	NA	NA	NA
1958	NA	NA	NA	NA
1959	NA	NA	NA	NA
1960	NA	NA	NA	NA
1961	NA	NA	NA	NA
1962	NA	NA	NA	NA
1963	33,737,000	41,935,000	44,831,000	41,013,000
1964	33,098,000	40,455,000	42,283,000	37,749,000
1965	30,242,000	35,701,000	36,093,000	32,788,000
1966	29,054,000	37,484,000	39,890,000	37,287,000
1967	31,582,000	39,027,000	40,395,000	37,940,000
1968	32,521,000	39,662,000	41,593,000	39,613,000
1969	33,115,000	37,585,000	38,176,000	36,153,000
1970	32,751,000	41,228,000	43,742,000	43,386,000
1971	37,468,000	41,488,000	41,030,000	40,157,000
1972	35,227,000	38,610,000	39,151,000	38,094,000
1973	34,915,000	38,658,000	39,308,000	40,178,000
1974	36,043,000	38,508,000	38,478,000	36,178,000
1975	30,045,000	30,783,000	31,483,000	31,329,000
1976	29,883,000	34,677,000	37,261,000	35,694,000
1977	32,643,000	34,833,000	36,982,000	35,861,000
1978	33,223,000	35,238,000	37,130,000	38,087,000
1979	38,193,000	41,843,000	43,620,000	43,806,000
1980	41,787,000	42,099,000	42,699,000	42,230,000
1981	38,790,000	39,845,000	40,813,000	39,949,000
1982	35,076,000	35,556,000	36,262,000	37,182,000
1983	36,239,000	39,382,000	40,191,000	38,512,000
1984	34,624,000	36,144,000	37,630,000	37,072,000
1985	34,450,000	36,253,000	36,443,000	35,842,000
1986	33,262,000	33,005,000	34,495,000	34,620,000
1987	34,005,000	35,750,000		

Market hogs & pigs by weight groups
10 States, 1954ff

Year	March 1 Under 60 lbs.	March 1 60-119 lbs.	March 1 120-179 lbs.	March 1 180 lbs & over
1954	NA	NA	NA	NA
1955	NA	NA	NA	NA
1956	NA	NA	NA	NA
1957	NA	NA	NA	NA
1958	NA	NA	NA	NA
1959	NA	NA	NA	NA
1960	NA	NA	NA	NA
1961	NA	NA	NA	NA
1962	NA	NA	NA	NA
1963	11,940,000	7,561,000	8,488,000	5,748,000
1964	11,648,000	7,515,000	8,160,000	5,775,000
1965	10,510,000	6,688,000	7,617,000	5,427,000
1966	10,384,000	6,167,000	7,173,000	4,830,000
1967	11,647,000	6,762,000	7,739,000	5,434,000
1968	11,945,000	7,030,000	8,040,000	5,506,000
1969	12,230,000	7,135,000	8,103,000	5,647,000
1970	12,618,000	7,100,000	7,682,000	5,351,000
1971	13,144,000	8,119,000	9,495,000	6,710,000
1972	12,373,000	7,803,000	8,785,000	6,266,000
1973	12,845,000	7,917,000	8,373,000	5,780,000
1974	12,618,000	8,357,000	8,708,000	6,360,000
1975	10,394,000	7,120,000	7,224,000	5,307,000
1976	11,738,000	6,724,000	6,532,000	4,889,000
1977	12,359,000	7,439,000	7,557,000	5,288,000
1978	12,727,000	7,810,000	7,447,000	5,239,000
1979	15,134,000	9,046,000	8,286,000	5,727,000
1980	16,009,000	9,898,000	9,358,000	6,522,000
1981	14,446,000	9,457,000	8,641,000	6,246,000
1982	12,773,000	8,777,000	7,823,000	5,703,000
1983	13,822,000	9,048,000	7,759,000	5,610,000
1984	12,437,000	8,561,000	7,769,000	5,857,000
1985	12,701,000	8,427,000	7,580,000	5,752,000
1986	12,350,000	8,046,000	7,276,000	5,590,000
1987	12,931,000	8,144,000	7,302,000	5,628,000

Market hogs & pigs by weight groups
10 States, 1954ff.

Year	June 1 Under 60 lbs.	June 1 60-119 lbs.	June 1 120-179 lbs.	June 1 180 lbs. & over
1954	NA	NA	NA	NA
1955	NA	NA	NA	NA
1956	NA	NA	NA	NA
1957	NA	NA	NA	NA
1958	NA	NA	NA	NA
1959	NA	NA	NA	NA
1960	NA	NA	NA	NA
1961	NA	NA	NA	NA
1962	NA	NA	NA	NA
1963	23,653,000	9,193,000	5,141,000	3,948,000
1964	22,112,000	8,847,000	5,388,000	4,108,000
1965	19,061,000	7,928,000	5,109,000	3,603,000
1966	20,477,000	8,352,000	5,125,000	3,530,000
1967	20,599,000	8,978,000	5,512,000	3,938,000
1968	20,705,000	8,919,000	5,781,000	4,257,000
1969	18,528,000	8,942,000	5,743,000	4,372,000
1970	21,124,000	9,569,000	6,061,000	4,474,000
1971	19,970,000	9,869,000	6,342,000	5,307,000
1972	18,690,000	9,309,000	5,887,000	4,724,000
1973	18,756,000	9,044,000	6,144,000	4,714,000
1974	18,286,000	9,093,000	5,872,000	5,257,000
1975	14,058,000	7,442,000	5,137,000	4,146,000
1976	16,754,000	8,349,000	5,447,000	4,127,000
1977	16,615,000	8,132,000	5,834,000	4,252,000
1978	16,032,000	8,497,000	6,077,000	4,632,000
1979	19,099,000	10,072,000	7,253,000	5,419,000
1980	18,732,000	10,219,000	7,508,000	5,640,000
1981	17,820,000	9,518,000	7,040,000	5,467,000
1982	14,986,000	8,779,000	6,585,000	5,206,000
1983	17,509,000	9,481,000	6,929,000	5,463,000
1984	15,437,000	9,187,000	6,361,000	5,159,000
1985	15,168,000	9,100,000	6,545,000	5,440,000
1986	13,775,000	8,275,000	6,170,000	4,785,000
1987	15,070,000	8,865,000	6,750,000	5,065,000

Market hogs & pigs by weight groups
10 States, 1954ff.

Year	Sept 1 Under 60 lbs.	Sept 1 60-119 lbs.	Sept 1 120-179 lbs.	Sept 1 180 lbs. & over
1954	NA	NA	NA	NA
1955	NA	NA	NA	NA
1956	NA	NA	NA	NA
1957	NA	NA	NA	NA
1958	NA	NA	NA	NA
1959	NA	NA	NA	NA
1960	NA	NA	NA	NA
1961	NA	NA	NA	NA
1962	NA	NA	NA	NA
1963	16,063,000	11,966,000	10,517,000	6,285,000
1964	14,421,000	11,667,000	10,120,000	6,075,000
1965	12,289,000	9,771,000	8,476,000	5,557,000
1966	13,640,000	10,903,000	9,452,000	5,895,000
1967	14,036,000	10,492,000	9,706,000	6,161,000
1968	15,014,000	10,687,000	9,693,000	6,199,000
1969	14,256,000	9,538,000	8,518,000	5,864,000
1970	16,740,000	11,208,000	9,539,000	6,255,000
1971	15,670,000	10,344,000	8,969,000	6,047,000
1972	15,305,000	10,089,000	8,296,000	5,461,000
1973	15,429,000	10,353,000	8,215,000	5,311,000
1974	14,417,000	10,406,000	8,134,000	5,521,000
1975	12,577,000	7,943,000	6,476,000	4,487,000
1976	14,861,000	9,456,000	7,661,000	5,283,000
1977	15,201,000	9,345,000	7,198,000	5,238,000
1978	15,416,000	9,346,000	7,086,000	5,282,000
1979	18,270,000	11,050,000	8,515,000	5,785,000
1980	16,597,000	11,096,000	8,803,000	6,203,000
1981	16,473,000	10,268,000	8,183,000	5,889,000
1982	14,665,000	9,004,000	7,298,000	5,295,000
1983	15,877,000	10,195,000	8,305,000	5,814,000
1984	14,957,000	9,209,000	7,835,000	5,629,000
1985	14,630,000	8,820,000	7,406,000	5,587,000
1986	13,725,000	8,380,000	7,020,000	5,370,000
1987				

Market hogs & pigs by weight groups
10 States, 1954ff.

Year	Dec 1 Under 60 lbs.	Dec 1 60-119 lbs.	Dec 1 120-179 lbs.	Dec 1 180 lbs. & over
1954	NA	NA	NA	NA
1955	NA	NA	NA	NA
1956	NA	NA	NA	NA
1957	NA	NA	NA	NA
1958	NA	NA	NA	NA
1959	NA	NA	NA	NA
1960	NA	NA	NA	NA
1961	NA	NA	NA	NA
1962	NA	NA	NA	NA
1963	14,096,000	10,814,000	8,841,000	7,262,000
1964	12,592,000	10,192,000	8,165,000	6,800,000
1965	11,661,000	8,860,000	6,834,000	5,433,000
1966	12,927,000	9,938,000	7,858,000	6,564,000
1967	13,388,000	10,262,000	7,704,000	6,586,000
1968	13,921,000	10,827,000	8,269,000	6,596,000
1969	12,917,000	9,902,000	7,420,000	5,914,000
1970	15,617,000	11,807,000	8,771,000	7,191,000
1971	14,788,000	10,625,000	8,196,000	6,548,000
1972	14,593,000	10,096,000	7,798,000	5,607,000
1973	15,446,000	10,554,000	8,033,000	6,145,000
1974	13,413,000	9,543,000	7,565,000	5,657,000
1975	12,063,000	8,360,000	6,242,000	4,664,000
1976	14,268,000	9,341,000	6,788,000	5,297,000
1977	14,621,000	9,235,000	6,839,000	5,166,000
1978	15,867,000	9,896,000	7,114,000	5,210,000
1979	17,195,000	11,769,000	8,714,000	6,128,000
1980	16,755,000	10,656,000	8,541,000	6,278,000
1981	15,379,000	10,124,000	8,234,000	6,212,000
1982	14,899,000	9,362,000	7,523,000	5,398,000
1983	14,808,000	9,892,000	7,899,000	5,913,000
1984	14,231,000	9,502,000	7,606,000	5,733,000
1985	13,641,000	9,240,000	7,367,000	5,594,000
1986	13,246,000	8,740,000	7,096,000	5,538,000
1987				

Hogs and Pigs Balance Sheet. 1964-1987

Year	Dec 1 Inven- tory	Dec-May Pig Crop	Total Supply	Comm. Slaugh- ter Dec-May	Other Disap- pear- ance	Jun 1 Inven- tory	Jun-Nov Pig Crop	Total Supply	Comm. Slaugh- ter Jun-Nov	Other Dis- appear- ance
1964	62,060	47,682	109,742	43,776	6,189	59,777	39,862	99,639	39,285	4,248
1965	56,106	42,526	98,632	40,579	5,085	52,968	36,415	89,383	35,081	3,783
1966	50,519	43,471	95,990	35,331	4,462	56,197	42,132	98,329	37,238	3,966
1967	57,125	48,117	105,242	41,803	4,073	59,366	43,551	102,917	40,381	3,718
1968	58,818	49,077	107,895	43,093	4,271	60,531	45,078	105,609	41,652	3,128
1969	60,829	46,521	107,350	44,015	4,608	58,727	42,155	100,882	40,287	3,549
1970	57,046	52,126	109,172	40,749	3,784	64,639	49,588	114,227	43,326	3,616
1971	67,285	51,918	119,203	49,087	4,398	65,718	46,006	111,724	45,908	3,404
1972	62,412	47,523	109,935	45,108	4,201	60,626	43,051	103,677	41,203	3,457
1973	59,017	46,125	105,142	40,292	5,279	59,571	41,998	101,569	36,878	4,077
1974	60,614	44,792	105,406	41,183	5,345	58,878	38,952	97,830	40,194	2,943
1975	54,693	35,530	90,223	37,854	4,509	47,860	35,656	83,516	31,666	2,583
1976	49,267	42,177	91,444	34,691	2,823	53,930	42,218	96,148	38,051	3,163
1977	54,934	42,960	97,894	39,435	3,999	54,460	43,202	97,662	38,219	2,904
1978	56,539	42,481	99,020	38,947	4,833	55,240	46,031	101,271	38,462	2,453
1979	60,356	50,551	110,907	41,217	4,617	65,020	52,241	117,261	46,627	3,316
1980	67,318	52,288	119,606	49,294	5,057	65,255	49,432	114,687	46,216	4,009
1981	64,462	47,605	112,067	47,503	4,824	59,740	46,248	105,988	43,991	3,299
1982	58,698	41,575	100,273	43,938	4,075	52,260	43,614	95,874	39,646	1,694
1983	54,534	47,409	101,943	41,516	2,482	57,945	45,746	103,691	45,146	1,851
1984	56,694	42,403	99,097	44,147	2,135	52,815	44,183	96,998	41,840	1,085
1985	54,073	42,545	96,618	42,814	1,554	52,250	43,484	95,734	41,771	1,650
1986	52,313	40,313	92,626	41,484	2,497	48,645	41,970	90,615	38,127	1,528
1987	50,960	41,133	92,093							

Sows Farrowing
10 States

Year	Dec-Feb	Mar-May	Dec-May	June-Aug	Sept-Nov	June-Nov
1955	1,667,000	4,776,000	6,443,000	2,185,000	1,821,000	4,006,000
1956	1,675,000	4,056,000	5,731,000	1,906,000	1,764,000	3,670,000
1957	1,571,000	3,838,000	5,409,000	1,960,000	1,711,000	3,671,000
1958	1,858,000	3,688,000	5,546,000	2,344,000	1,986,000	4,330,000
1959	2,130,000	3,896,000	6,026,000	2,443,000	2,014,000	4,457,000
1960	1,698,000	3,429,000	5,127,000	2,238,000	2,092,000	4,330,000
1961	1,765,000	3,665,000	5,430,000	2,302,000	2,162,000	4,464,000
1962	1,836,000	3,601,000	5,437,000	2,374,000	2,285,000	4,659,000
1963	1,860,000	3,715,000	5,575,000	2,427,000	2,215,000	4,642,000
1964	1,727,000	3,532,000	5,259,000	2,270,000	2,072,000	4,342,000
1965	1,585,000	3,081,000	4,666,000	1,958,000	1,913,000	3,871,000
1966	1,602,000	3,270,000	4,872,000	2,290,000	2,154,000	4,444,000
1967	1,745,000	3,330,000	5,075,000	2,258,000	2,234,000	4,492,000
1968	1,789,000	3,346,000	5,135,000	2,373,000	2,319,000	4,692,000
1969	1,762,000	3,035,000	4,797,000	2,145,000	2,170,000	4,315,000
1970	1,889,000	3,530,000	5,419,000	2,544,000	2,635,000	5,179,000
1971	2,028,000	3,331,000	5,359,000	2,330,000	2,439,000	4,769,000
1972	1,827,000	3,073,000	4,900,000	2,243,000	2,336,000	4,579,000
1973	1,923,000	2,997,000	4,920,000	2,215,000	2,291,000	4,506,000
1974	1,929,000	2,913,000	4,842,000	2,131,000	2,033,000	4,164,000
1975	1,519,000	2,189,000	3,708,000	1,841,000	1,872,000	3,713,000
1976	1,757,000	2,604,000	4,361,000	2,208,000	2,268,000	4,476,000
1977	1,997,000	2,592,000	4,589,000	2,273,000	2,282,000	4,555,000
1978	1,977,000	2,563,000	4,540,000	2,328,000	2,494,000	4,822,000
1979	2,364,000	3,088,000	5,452,000	2,792,000	2,690,000	5,482,000
1980	2,428,000	2,988,000	5,416,000	2,517,000	2,620,000	5,137,000
1981	2,192,000	2,750,000	4,942,000	2,461,000	2,427,000	4,888,000
1982	2,027,000	2,411,000	4,438,000	2,227,000	2,397,000	4,624,000
1983	2,154,000	2,782,000	4,936,000	2,422,000	2,377,000	4,799,000
1984	1,964,000	2,481,000	4,445,000	2,259,000	2,316,000	4,575,000
1985	1,955,000	2,420,000	4,375,000	2,191,000	2,265,000	4,456,000
1986	1,863,000	2,161,000	4,024,000	2,034,000	2,150,000	4,184,000
1987	1,957,000	2,305,000	4,262,000			

Pig Crop
10 States

Year	Dec-Feb	Mar-May	Dec-May	June-Aug	Sept-Nov	June-Nov
1955	NA	NA	NA	NA	NA	NA
1956	NA	NA	NA	NA	NA	NA
1957	NA	NA	NA	NA	NA	NA
1958	NA	NA	NA	NA	NA	NA
1959	NA	NA	NA	NA	NA	NA
1960	NA	NA	NA	NA	NA	NA
1961	NA	NA	NA	NA	NA	NA
1962	NA	NA	NA	NA	NA	NA
1963	12,998,000	27,044,000	40,042,000	17,554,000	16,088,000	33,642,000
1964	12,489,000	25,657,000	38,146,000	16,372,000	14,971,000	31,343,000
1965	11,457,000	22,284,000	33,741,000	14,181,000	13,977,000	28,158,000
1966	11,771,000	24,055,000	35,826,000	16,476,000	15,749,000	32,225,000
1967	12,770,000	24,544,000	37,314,000	16,666,000	16,542,000	33,208,000
1968	13,024,000	25,049,000	38,073,000	17,546,000	17,083,000	34,629,000
1969	12,741,000	22,399,000	35,140,000	15,773,000	15,732,000	31,505,000
1970	13,686,000	26,048,000	39,734,000	18,301,000	18,872,000	37,173,000
1971	14,229,000	24,182,000	38,411,000	16,890,000	17,760,000	34,650,000
1972	13,404,000	22,442,000	35,846,000	16,297,000	16,865,000	32,982,000
1973	13,685,000	21,524,000	35,209,000	15,779,000	16,322,000	32,101,000
1974	13,431,000	20,882,000	34,313,000	15,072,000	14,498,000	29,570,000
1975	10,795,000	15,737,000	26,532,000	13,305,000	13,522,000	26,827,000
1976	14,696,000	21,525,000	36,221,000	18,389,000	17,970,000	36,359,000
1977	15,586,000	21,386,000	36,972,000	18,768,000	18,421,000	37,189,000
1978	15,661,000	20,716,000	36,377,000	19,234,000	19,984,000	39,218,000
1979	16,236,000	22,108,000	38,344,000	19,923,000	19,212,000	39,135,000
1980	17,420,000	21,889,000	39,309,000	18,077,000	19,022,000	37,099,000
1981	15,863,000	20,746,000	36,609,000	18,134,000	17,917,000	36,051,000
1982	14,438,000	18,096,000	32,534,000	16,460,000	17,803,000	34,263,000
1983	16,040,000	21,194,000	37,234,000	17,836,000	17,663,000	35,499,000
1984	14,288,000	18,814,000	33,102,000	17,158,000	17,420,000	34,578,000
1985	14,690,000	18,762,000	33,452,000	16,941,000	17,255,000	34,196,000
1986	14,254,000	16,878,000	31,132,000	15,853,000	16,729,000	32,582,000
1987	15,156,000	18,485,000	33,641,000			

Pigs per Litter
10 States

Year	Dec-Feb	Mar May	Dec-May	June-Aug	Sept-Nov	June-Nov
1955	NA	NA	NA	NA	NA	NA
1956	NA	NA	NA	NA	NA	NA
1957	NA	NA	NA	NA	NA	NA
1958	NA	NA	NA	NA	NA	NA
1959	NA	NA	NA	NA	NA	NA
1960	NA	NA	NA	NA	NA	NA
1961	NA	NA	NA	NA	NA	NA
1962	NA	NA	NA	NA	NA	NA
1963	6.99	7.28	NA	7.23	7.26	NA
1964	7.23	7.26	NA	7.21	7.23	NA
1965	7.23	7.23	NA	7.24	7.31	NA
1966	7.35	7.36	NA	7.19	7.31	NA
1967	7.32	7.37	NA	7.38	7.40	NA
1968	7.28	7.49	NA	7.39	7.37	NA
1969	7.23	7.38	NA	7.35	7.25	NA
1970	7.25	7.38	7.33	7.19	7.16	7.18
1971	7.02	7.26	7.17	7.25	7.28	7.27
1972	7.34	7.30	7.32	7.27	7.14	7.20
1973	7.12	7.18	7.16	7.12	7.12	7.12
1974	6.96	7.17	7.09	7.07	7.13	7.10
1975	7.11	7.19	7.16	7.23	7.22	7.23
1976	7.19	7.41	7.32	7.32	7.13	7.22
1977	6.81	7.42	7.15	7.20	7.20	7.20
1978	6.89	7.24	7.09	7.23	7.18	7.20
1979	6.87	7.16	NA	7.14	7.14	NA
1980	7.17	7.33	NA	7.18	7.26	NA
1981	7.24	7.54	NA	7.37	7.38	NA
1982	7.12	7.51	NA	7.39	7.43	NA
1983	7.45	7.62	7.54	7.36	7.43	7.40
1984	7.27	7.58	7.45	7.60	7.52	7.56
1985	7.51	7.75	7.65	7.73	7.62	7.67
1986	7.65	7.81	7.74	7.79	7.78	7.79
1987	7.74	7.91	7.83			

Pork supplies and prices

Year	1000 Head			Average Dressed Weight lbs.	Commer. Produc- tion m/lbs.	Per Capita Consump- lbs.	Prices		
	Est. Commercial Slaughter						Retail c/lb	B & G	
	Barrows	Sows	Boars Total					7 Mar. \$/Cwt.	Farm \$/Cwt.
1907			41,227			NA			NA
1908			47,863			NA			NA
1909			39,611			80.0			6.62
1910			33,415			74.2			8.14
1911			42,669			82.2			6.21
1912			41,440			79.6			6.73
1913			42,764			79.7			7.54
1914			40,858			77.6			7.52
1915			47,064			79.2			6.47
1916			51,905			82.2			8.37
1917			41,126			70.3			13.90
1918			48,761			72.7			16.10
1919			48,991			76.2			16.40
1920			44,806			75.8			12.90
1921			45,937	173.2		77.2			7.63
1922			50,998	172.8		78.3			8.40
1923			62,808	172.9		88.5			6.94
1924			62,314	167.3		88.2			7.34
1925			51,284	170.5		79.6			10.90
1926			48,674	179.5		76.4			11.80
1927			52,340	177.9		80.8			9.64
1928			59,294	172.8		84.6			8.54
1929			57,759	174.6		82.9			9.42
1930			53,732	174.8	6.757	80.0			8.84
1931			54,895	175.3	6,904	81.7			5.73
1932			55,845	173.6	6,935	84.4			3.34
1933			64,437	174.7	7.285	84.4			3.53
1934			53,650	165.2	6,508	76.8			4.14
1935			32,663	169.7	4,255	57.7			8.65
1936			44,435	169.5	5,702	65.6			9.37
1937			40,382	167.8	5,265	66.5			9.50
1938			45,602	174.5	5,995	69.4			7.74
1939			52,581	176.8	6,889	77.2			6.23
1940			63,455	173.3	8,246	87.7			5.39

Pork supplies and prices

Year	1000 Head			Average Dressed Weight lbs.	Commer. Produc- tion m/lbs.	Per Capita Consump- tion lbs.	Prices		
	Est. Barrows & Gilts	Commercial Sows	Slaughter Boars Total				Retail c/lb	B & G 7 Mar. \$/Cwt.	Farm \$/Cwt.
1941			58,608	181.8	7,904	81.7			9.09
1942			66,014	184.6	9,234	75.9			13.00
1943			81,210	192.2	11,762	94.1			13.70
1944			84,517	184.4	11,502	94.9			13.10
1945			58,260	200.5	8,843	79.4			14.00
1946			62,300	191.7	9,220	90.4			17.50
1947			61,929	192.6	8,811	82.9			24.10
1948			59,669	192.2	8,486	80.9			23.10
1949			64,761	188.7	8,875	80.8			18.10
1950			69,543	185.4	9,397	82.6	53.8	18.52	18.00
I			18,610		2,231		48.6	16.30	15.90
II			15,695		2,221		52.1	18.33	17.40
III			13,664		2,415		60.0	23.08	21.30
IV			21,575		2,381		54.7	18.79	18.27
1951			76,061	184.9	10,190	85.6	57.8	20.56	20.00
I			19,739		2,188		57.6	21.56	21.03
II			17,772		1,965		57.8	21.29	20.63
III			15,461		2,140		59.1	21.63	20.40
IV			23,090		2,256		56.9	18.90	18.63
1952			77,690	183.9	10,321	86.4	56.2	18.13	17.80
I			22,719		2,216		56.0	17.05	17.00
II			17,440		2,143		54.8	19.08	18.33
III			14,777		2,420		59.9	21.18	19.77
IV			22,753		2,558		56.3	17.43	17.07
1953			66,913	182.0	8,971	75.8	62.1	21.99	21.40
I			19,808		2,706		56.0	19.49	19.13
II			14,447		2,949		62.7	24.01	22.30
III			13,463		3,126		67.8	25.12	23.63
IV			19,196		3,274		61.6	22.26	21.53
1954			64,827	187.1	8,932	71.5	63.4	22.25	21.60
I			16,409		3,065		66.4	25.61	25.00
II			13,202		3,061		67.2	25.87	24.20
III			14,615		3,256		62.7	21.71	20.40
IV			20,601		3,219		57.2	18.25	17.97
1955			74,216	184.3	10,027	79.6	53.6	15.19	15.00
I			19,286		3,081		54.5	16.62	16.20
II			15,155		3,232		54.3	17.92	16.90
III			15,778		3,478		55.9	16.81	15.93
IV			23,998		3,422		50.1	12.40	12.40

Pork supplies and prices

Year	1000 Head			Average Commer.		Per Capita Consump-	Prices		
	Est. Commercial Slaughter			Dressed Produc-	tion		B & G		
	Barrows	Sows	Boars Total				Weight lbs.	lbs.	Retail c/lb
	& Gilts								
1956			78,513	178.6	10,284	80.1	51.4	14.82	14.40
I			15,140		3,449		46.7	15.77	11.83
II			22,654		3,448		51.1	16.00	15.17
III			17,302		3,465		54.5	16.13	15.73
IV			17,555		3,648		53.3	15.74	46.00
1957			72,395	179.7	9,579	72.8	59.4	18.29	17.80
I			19,257		3,507		56.0	17.69	17.00
II			16,636		3,374		58.6	19.56	17.73
III			16,340		3,527		64.5	20.47	19.53
IV			20,363		3,404		58.4	17.50	17.13
1958			70,965		9,618	71.8	63.8	20.25	19.60
I			17,920		2,375		62.2	20.21	19.43
II			16,230		2,250		65.2	21.88	20.97
III			16,670		2,254		66.6	21.62	20.80
IV			20,145		2,739		61.4	18.29	17.97
1959			81,582		11,131	80.5	56.3	14.64	14.10
I			20,564		2,790		58.3	16.05	16.77
II			18,442		2,568		57.4	16.03	15.27
III			18,999		2,560		56.5	14.29	13.50
IV			23,577		3,213		53.1	12.53	12.00
1960			79,036		10,863	77.3	55.9	15.96	15.30
I			22,155		2,979		51.6	13.92	13.37
II			19,212		2,667		55.4	16.29	15.63
III			17,617		2,419		58.4	17.08	16.20
IV			20,053		2,798		58.2	17.31	16.60
1961			77,335		10,730	74.0	58.4	17.16	16.60
I			19,974		2,750		58.8	17.66	17.13
II			18,535		2,600		57.5	16.67	16.23
III			17,433		2,403		59.3	18.13	17.13
IV			21,393		2,977		58.0	16.51	16.13
1962			79,334		11,229	75.8	58.8	16.82	16.30
I			20,595		2,891		58.3	16.66	16.23
II			19,288		2,749		57.0	16.06	15.53
III			17,384		2,452		61.2	18.54	52.60
IV			22,068		3,137		58.4	16.51	16.17

Pork supplies and prices

Year	1000 Head			Average Commer. Dressed Weight lbs.	Produc- tion m/lbs.	Per Capita Consump- lbs	Prices		
	Est. Barrows & Gilts	Commercial Sows	Slaughter Boars Total				Retail c/lb	B & G 7 Mar. \$/Cwt.	Farm \$/Cwt.
1963			83,324		11,863	78.2	56.6	15.36	14.90
I			21,554		3,041		56.8	14.95	14.67
II			19,986		2,847		54.7	16.85	14.67
III			18,816		2,660		59.1	17.29	16.43
IV			22,967		3,315		56.0	14.72	14.33
1964			83,018		12,019	78.2	55.9	15.31	14.80
I			22,245		3,187		54.6	14.63	14.27
II			19,731		2,862		54.7	14.94	14.40
III			18,069		2,606		58.3	16.97	16.00
IV			22,975		3,364		56.0	15.12	14.63
1965			73,784		10,736	70.1	65.8	21.30	20.60
I			20,685		2,961		57.1	16.68	16.10
II			17,684		2,579		61.4	20.43	19.67
III			17,012		2,478		71.5	23.95	23.00
IV			18,404		2,718		73.2	25.25	24.43
1966			74,011		11,130	69.7	74.0	23.49	22.80
I			17,659		2,645		79.2	26.71	26.17
II			17,339		2,639		72.4	23.38	22.53
III			17,638		2,617		74.8	24.67	23.33
IV			21,375		3,229		69.8	20.37	19.80
1967			82,124		12,377	76.9	67.2	19.37	18.90
I			21,574		3,224		66.1	19.09	18.60
II			18,984		2,869		66.4	20.58	19.87
III			19,276		2,893		70.2	21.03	20.33
IV			22,289		3,391		66.0	17.60	17.27
1968			85,160		12,867	78.7	67.4	19.19	18.50
I			21,330		3,196		66.4	18.93	18.37
II			20,503		3,118		66.9	19.44	18.73
III			20,057		2,998		69.1	20.50	19.83
IV			23,270		3,554		67.3	18.32	17.73
1969			83,838		12,774	77.6	74.3	23.71	22.20
I			22,234		3,351		68.5	20.29	19.43
II			20,419		3,137		71.9	22.89	22.00
III			19,868		2,986		78.0	26.30	25.23
IV			21,318		3,300		78.8	26.08	25.20

Pork supplies and prices

Year	1000 Head			Average	Commer.	Per	Prices		
	Est. Commercial Slaughter			Dressed	Produc-	Capita	B & G		
	Barrows			Weight	tion	Consump-	Retail	7 Mar.	Farm
& Gilts	Sows	Boars	Total	lbs.	m/lbs.	lbs.	c/lb	\$/Cwt.	\$/Cwt.
1970			85,817	186.7	14,500	72.6	78.0	21.95	22.70
I			19,949	184.9	3,342	16.9	81.8	27.19	26.50
II			19,978	189.8	3,421	16.9	80.0	23.86	23.33
III			20,619	185.1	3,450	17.7	79.0	22.53	21.70
IV			25,271	187.1	4,287	21.1	71.3	16.42	16.13
1971			94,438	184.9	15,815	78.7	70.3	18.45	17.50
I			24,256	182.4	4,010	20.1	69.2	17.60	17.10
II			23,609	186.8	3,987	19.1	68.8	17.33	16.80
III			22,308	184.0	3,724	19.2	71.3	19.09	18.47
IV			24,264	186.3	4,094	20.3	72.9	20.06	19.33
1972			84,707	185.7	14,241	70.9	83.2	26.67	25.10
I			22,261	182.6	3,710	18.8	79.0	24.34	23.90
II			21,389	187.3	3,623	17.6	79.9	24.99	24.33
III			20,441	183.8	3,237	16.4	86.1	28.84	27.87
IV			21,617	187.6	3,671	18.1	87.7	28.89	27.90
1973			76,795	187.6	13,043	63.5	109.2	40.27	38.40
I			20,225	184.7	3,142	15.4	114.1	39.35	38.43
II			19,478	188.3	3,328	15.9	102.6	36.82	35.90
III			16,875	188.1	2,869	14.2	121.2	49.04	47.13
IV			20,217	189.6	3,461	16.7	115.5	40.96	39.87
1974			81,762	190.7	14,100	68.5	107.8	35.12	34.20
I			20,150	190.7	3,481	17.2	114.8	38.40	38.13
II			21,014	193.5	3,670	17.5	98.9	28.00	27.03
III			19,705	190.0	3,381	16.5	107.0	36.59	34.67
IV			20,983	188.6	3,568	17.2	110.6	39.06	37.43
1975			68,687	186.4	11,585	55.4	134.6	48.32	46.10
I			18,760	184.7	3,142	15.4	114.1	39.35	38.43
II			17,808	185.7	2,992	14.1	122.7	46.11	43.93
III			15,307	184.6	2,555	12.3	148.8	58.83	56.20
IV			16,813	190.5	2,896	13.6	152.9	52.20	51.67
1976			73,784	186.8	12,488	58.6	134.0	43.11	43.30
I			17,432	187.3	2,958	14.2	141.2	47.99	47.10
II			16,821	187.0	2,847	13.2	138.2	49.19	47.93
III			17,982	185.1	3,014	14.1	137.1	43.88	43.30
IV			21,549	187.6	3,669	17.1	119.6	34.25	33.57

Pork supplies and prices

Year	1000 Head				Average Dressed Weight lbs.	Commer. Produc- tion m/lbs.	Per Capita Consump- tion lbs.	Prices		
	Fst. Commercial Slaughter							B & G		
	Barrows	Sows	Boars	Total				Retail c/lb	7 Mar. \$/Cwt.	Farm \$/Cwt.
1977	72,245	4,234	824	77,303	169.0	13,051	60.5	125.4	41.30	40.07
I	18,522	1,031	217	19,770	167.0	3,294	15.4	120.5	39.08	38.23
II	17,582	950	211	18,743	170.0	3,184	14.7	121.7	40.87	39.57
III	17,002	1,086	205	18,293	168.0	3,073	14.4	131.0	43.85	42.63
IV	19,139	1,167	191	20,497	171.0	3,500	15.9	128.2	41.38	29.83
1978	72,520	4,038	757	77,315	171.0	13,209	60.3	143.6	48.46	47.09
I	18,200	1,011	194	19,405	167.0	3,243	15.0	137.0	47.44	45.09
II	17,940	906	196	19,042	171.0	3,265	14.7	142.4	47.84	46.83
III	17,343	1,025	185	18,553	170.0	3,160	14.7	144.7	48.52	46.93
IV	19,037	1,096	182	20,315	174.0	3,541	15.9	150.1	50.05	48.70
1979	83,168	5,003	928	89,099	171.0	15,270	68.7	144.1	42.48	41.30
I	18,903	949	188	20,040	169.0	3,395	15.5	156.1	51.98	50.53
II	20,512	1,008	220	21,740	173.0	3,754	16.8	148.2	43.04	42.30
III	20,388	1,444	250	22,082	171.0	3,775	17.3	138.0	38.52	37.10
IV	23,365	1,602	270	25,237	172.0	4,346	19.1	134.3	36.40	35.07
1980	89,560	5,397	1,117	96,074	171.0	16,432	73.5	139.5	40.04	38.80
I	22,778	1,200	258	24,236	170.0	4,125	18.6	133.9	36.31	35.43
II	23,395	1,353	292	25,040	172.0	4,299	19.1	125.3	31.18	29.90
III	20,379	1,483	296	2,158	170.0	3,756	17.3	144.2	46.23	44.50
IV	23,008	1,361	271	24,640	173.0	4,252	18.5	154.6	46.44	45.57
1981	85,691	4,803	1,081	91,575	172.0	15,716	69.9	152.4	44.45	43.90
I	22,268	1,145	265	23,678	172.0	4,073	18.0	148.7	41.13	40.33
III	19,725	1,277	276	21,278	169.0	3,605	16.6	157.5	50.42	49.03
IV	22,534	1,236	255	24,025	173.0	4,157	18.2	158.7	42.63	41.83
1982	77,096	4,102	993	82,191	172.0	14,121	62.7	175.4	55.07	52.30
I	20,437	1,093	274	21,714	170.0	3,693	16.3	160.1	48.17	46.30
II	19,498	956	258	20,712	171.0	3,550	15.6	169.3	56.46	55.13
III	17,668	1,030	242	18,940	171.0	3,240	14.8	185.0	61.99	60.10
IV	19,583	1,023	219	20,825	175.0	3,638	16.0	187.1	55.12	53.97
1983	81,864	4,646	974	87,584	173.0	15,117	66.2	169.8	47.33	46.80
I	19,141	852	219	20,212	172.0	3,483	15.4	183.0	55.00	53.93
II	20,267	1,053	246	21,666	174.0	3,771	16.3	171.1	46.74	45.57
III	19,648	1,450	274	21,372	171.0	3,657	16.4	165.4	46.90	44.73
IV	22,808	1,291	235	24,334	173.0	4,206	18.0	159.8	42.18	40.70

[illegible]